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# ANNUAL REPORT

OF THE

Medical Officer of Health,

T. EUSTACE HILL, O.B.E., D.Hy., M.B., B.Sc.

AND

OTHER RECORDS

FOR THE YEAR


1925.

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PRINTED BY THE  
SUNDERLAND POST COMPANY, LIMITED,  
SUNDERLAND

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1926.



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Table B1.—RURAL DISTRICTS.—Deaths at Certain Ages and from Certain Specified Causes.
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## THE COUNCIL OF THE COUNTY PALATINE OF DURHAM.

TO THE CHAIRMAN AND MEMBERS OF THE  
HEALTH COMMITTEE.

GENTLEMEN,

I have pleasure in submitting my thirty-fifth annual report on the health of the administrative county.

In accordance with the requirements of the Minister of Health the report for 1925 is a survey report dealing with the measure of progress in the improvement of the public health made during the preceding five years, and it is therefore much more comprehensive than the immediately preceding annual reports.

I have not included in the report a digest of the reports of the district medical officers of health, as by the Sanitary Officers Order, 1922, county medical officers of health have been relieved of this obligation, and, moreover, the inclusion of a summary of these reports would have considerably delayed the issue of this report as a number of the district reports were not received until the latter part of the year.

While the crude total death-rate showed a further decline as compared with the immediately preceding year the infant mortality rate showed a slight increase, as did the death-rate from the chief infective diseases. It is notable that the infant mortality rate for the county during 1925 was more than 30 per cent. in excess of that for the whole of England and Wales, and I am quite satisfied that this persistently high rate for the administrative county is largely to be accounted for by the bad housing conditions and the excessive overcrowding which is as serious as ever in spite of the large number of new dwellings erected under housing schemes and by private enterprise since the termination of the war. The housing question is dealt with by me at some length in the body of this report.

A number of special tables and diagrams have been included in this survey report which I think will be regarded as of special value by those interested in public health matters.

I am,

Your obedient Servant,

T. EUSTACE HILL.

October, 1926.



## PERSONNEL OF THE COUNTY HEALTH DEPARTMENT.

The County Medical Officer.

The Deputy and Assistant County Medical Officer.

One Central Tuberculosis Medical Officer.

Five District Tuberculosis Medical Officers.

One Clinical Venereal Diseases Medical Officer.

One Senior Welfare Medical Officer.

Six whole-time and four part-time Assistant Welfare Medical Officers.

One County Health Inspector.

One Superintendent Health Visitor.

Two Assistant Superintendent Health Visitors.

Seventy-two permanent and two temporary Health Visitors.

One Midwives Inspector.

One Medical Superintendent of County Sanatorium.

One Assistant Medical Officer of County Sanatorium.

One Matron of County Sanatorium.

\*Two Medical Officers, part-time, at County Tuberculosis Hospitals.

\*Two Matrons at County Tuberculosis Hospitals.

Nursing and Domestic Staffs at three above-mentioned Institutions, which vary from time to time.

One Medical Officer, Richard Murray Hospital.

One Matron, County Maternity Home.

One Matron, E. F. Peile County Convalescent Home.

Nursing and Domestic Staffs at County Maternity Home and County Convalescent Home, which vary from time to time.

Caretakers of Tuberculosis Dispensaries and Child Welfare Centres.

Two Venereal Diseases Orderlies.

One Assistant Secretary.

Three Senior Grade Clerks.

Eight First Grade Clerks (five women).

Thirteen Second Grade Clerks (seven women).

Five Third Grade Clerks.

Four Office Youths.

Five permanent and two temporary Office Girls.

Four Clerks to District After-Care Committees. Part-time.

\*Appointments of two Medical Officers and one Matron terminated during year.

## ANNUAL REPORTS.

During recent years there has been increasing tendency to delay the sending in of the annual reports of the district medical officers of health to the County Council. At one time the great majority of these reports were received within three months of the end of the year, but during recent years and especially since the Great War quite a number of the reports have not been sent in by the end of June. With regard to the reports for 1925, no fewer than nine had not been received by the County Council up to the end of July, 1926. This delay in sending in the reports may be attributed to some extent to the fact that many medical officers of health delay the preparation of their report till they have received the annual vital statistics from the Registrar-General, which are not available till towards the end of the first quarter. So far as the annual reports for the year 1925 are concerned, possibly the fact that the reports, by virtue of them being survey reports, are more comprehensive, may also have been a cause of the delay, but in ordinary years there should be no difficulty whatever on the part of any district medical officer of health in completing his annual report before the end of March of the following year, and prints of the reports ought to be in the hands of the County Council before the end of April.

The annual report for the important Chester-le-Street rural district for the year 1924 has not been received by the County Council.

## DISTRICT MEDICAL OFFICERS OF HEALTH.

The following changes occurred during 1925. Dr. S. K. Young, one of the Assistant County Tuberculosis Medical Officers, was, with the sanction of the County Council, temporarily appointed as part-time medical officer of health for the Chester-le-Street urban district in place of Dr. D. Duncan, who retired after many years of excellent service. Dr. J. G. Walker was appointed joint whole-time medical officer of health for the Consett urban and Lanchester rural districts in place of Dr. W. M. Taylor, who was acting

temporarily as medical officer of health for the Consett urban district, and Dr. T. Buckham, who did valuable work for many years as medical officer of health for the Lanchester rural district until his lamented death during the year. Dr. T. C. Penfold, who previously acted as whole-time medical officer of health for the Auckland rural district, was appointed medical officer of health for the Chester-le-Street rural district in succession to Dr. J. Taylor, who, it is to be regretted, also died during the year after very many years of valuable public health service, and Dr. H. G. Donald succeeded Dr. T. C. Penfold.

### **AREA.**

The area of the administrative county in 1921 and at present is 632,280 acres. In 1920 the area was 633,058 acres, the decrease since that date being the result of a portion of the South Shields rural district being incorporated in the county borough of South Shields. This area included Harton village and the Union Workhouse with a total population of 1,960.

In 1921 a portion of the parish of Pelton, with an area of 140 acres and a population of 1,337, was transferred from the Chester-le-Street rural district to the Chester-le-Street urban district.

In 1922 a portion of the rural district of Chester-le-Street was formed into the urban district of Washington. This new urban district has an area of 5,026 acres and at the time of formation had an estimated population of 17,720.

In 1923 a portion of the Stockton rural district was formed into the Billingham urban district, this new urban district having an area of 3,036 acres, and at the time of formation had an estimated population of 8,684.

The administrative county now contains four municipal boroughs, twenty-seven urban districts, and fourteen rural districts.

### **POPULATION.**

The adjusted Census population of the administrative county in 1921 was 955,344, and at mid-year 1925 the population was estimated by the Registrar-General to be 994,800.



The following table gives the Registrar-General's estimates of population during the past five years and also the population based on the natural increase, or excess of births over deaths. There is reason to believe that the Registrar-General's estimate of population is somewhat low, for during the last five years there has been a large increase in the number of inhabited houses, and the excess of births over deaths since the last census is approximately 10,000 more than is provided for in the Registrar-General's estimates. It is very difficult to determine the effect of migration, and therefore the Registrar-General's figures of estimated population are adopted for the statistical purposes of this report.

Table 1.

Year.	Registrar General's estimate of Population.	Yearly Increase.	Population based on natural increase.	Natural Yearly Increase.
1921	955,344 (Census adjusted)		955,344	
1922	968,287	12,943	967,680	12,340
1923	975,600	7,313	981,039	13,359
1924	988,600	13,000	993,460	12,421
1925	994,800	6,200	1,004,582	11,122

The following table is interesting as showing the change in the ages of the population. In my annual report for 1912 I dealt with this matter at some length and pointed out that the population as a whole in the county was getting older, particularly as a result of the diminishing birth-rate, and the sub-joined table shows that this increased age of the population has made even more rapid progress judging by the census figures of 1921. This progressive increase in the proportion of persons living at older ages is of considerable national importance, and means that our population must in course of

time become less physically efficient if it continues through a few more decennia, and it is a very strong argument, in my opinion, against viewing with complacency the continuous decline in our national birth-rate. Up to the present our total death-rate has declined almost *pari passu* with the birth-rate and the natural increase of population has therefore not very materially suffered, but as was pointed out by Sir George Newman in his last published report on "The State of the Public Health" it is more than likely that our crude mortality rate is now at or near its lowest point and will hereafter increase owing to the change in the distribution of age groups of the population.

Table 2.

	1911	1921	Ratio, 1911 to 1901, the number in each age group in 1901 taken as 100.	Ratio, 1921 to 1911, the number in each age group in 1911 taken as 100.
All ages.	100,000	100,000		
Under 5	13,348	11,247	99	84
5-10	11,936	11,168	99	93
10-15	10,743	11,328	95	105
15-20	9,778	10,061	95	103
20-25	8,924	8,563	94	96
25-30	8,270	7,673	97	93
30-35	7,463	7,109	107	95
35-40	6,745	6,645	111	98
40-45	5,456	5,983	107	109
45-50	4,593	5,532	104	120
50-55	3,723	4,322	101	116
55-60	3,017	3,459	103	114
60-65	2,296	2,647	98	115
65-70	1,726	1,985	108	115
70-75	1,110	1,105	107	99
75 & over	872	1,013	98	116

## PHYSICAL FEATURES AND GENERAL CHARACTER.

The County of Durham is roughly triangular in shape, the apex of the triangle being on the west where the county joins

Cumberland and Westmoreland. To the north of the county is Northumberland, from which it is separated for the greater part of its length by the river Tyne. On the east is the coast line and on the south it is separated from the North Riding of Yorkshire to a great part of its extent by the River Tees. The principal rivers are the Tyne, Tees and Wear, the river Wear for almost its entire course passing practically through the middle of the county.

The county is very undulating and becomes almost mountainous in its western area, an elevation of over 2,000 feet being attained. Several populous districts are at a high altitude, notably, some of the villages in the Auckland, Teesdale, and Weardale districts, while the elevation of a considerable portion of the urban districts of Consett, Leadgate, and Tow Law approaches 1,000 feet.

The east, north and centre of the county is densely populated, but the western portion is largely agricultural and moorland in character, while there are large rural areas also in the southern part of the county.

The coal measures underlie a considerable portion of the north, east and centre of the county, the coal extending northwards into Northumberland. Over a great part of this area a clay soil covers the surfaces overlying the coal measures, but, particularly in the eastern portion of the county, a magnesium limestone formation covers the coal, which is at considerable depth and extends probably many miles under the sea. In the central and west central portion of the county the coal measures are closer to the surface.

Running almost through the middle of the county from the neighbourhood of Quarrington to beyond Hamsterley and across the coal measures is a thin basaltic formation, known as the Hett Whin dyke, while another similar formation to the north runs from near Sherburn through Houghall to the south of Durham. Another runs in a straight line from near Cleadon, in the South Shields rural district, to the north-west of Newcastle-upon-Tyne, while still another runs from near



Bolam, in the Darlington rural district, beyond the north of Cockfield, and almost meets the continuation of the Hett Whin dyke near Middleton-in-Teesdale, in the extreme west of the county.

At the south-east of the county the formation is mostly red and white sandstone with beds of red marl, gypsum and rock salt; this formation running from the south of West Hartlepool to a point near Grindon and then curving southwards into the North Riding of Yorkshire near Croft. This formation, as well as the magnesium limestone running along the east side of the county up to South Shields, is beneath boulder clay.

In many parts of the county the magnesium limestone formation comes out on to the surface and contains many fossils. A considerable portion of the population of the county is dependent on water obtained from this formation.

As regards minerals, in addition to coal, iron-ore, mostly as carbonate, is worked in Weardale, being confined to the limestone beds; while lead-ore, chiefly existing as galena (sulphide of lead) and containing a small amount of silver, is worked in Upper Teesdale and Weardale. The annual output of lead-ore approximates 4,000 tons per annum, and it is stated that over 2,000 ounces of silver is obtained from it.

Barytes (sulphate of barium) is found in considerable quantities in Upper Teesdale and New Brancepeth, this mineral in Upper Teesdale occurring in lead-bearing veins in the yoredale beds, while at New Brancepeth it is obtained from the coal measures in an almost pure condition. The annual output of this mineral averages about 14,000 tons per annum.

Salt is obtained from the upper permian rocks in the south-east of the county. It is pumped to the surface in the form of brine which is then evaporated, and the yearly production of salt in Durham exceeds 10,000 tons.

## **INHABITED HOUSES AND SEPARATE OCCUPIERS.**

Although it is not easy to make a comparison between the figures as given in the Census of 1921 as to the number of occupied dwellings, seeing that the Registrar-General in his last census report introduces a new term "Structurally Separate Dwelling" as the housing unit, it would appear that while in 1911 there were 180,000 inhabited dwellings, each flat or tenement being considered a separate dwelling, in 1921 this figure was 183,319, while the number of separate occupiers of these dwellings increased from 187,805 in 1911 to 194,774 in 1921.

## **SOCIAL CONDITIONS, ETC.**

According to the 1921 Census 140,965 males were engaged in coal and shale mines, coal mining being by far the most important industry in the county. In addition, 40,408 males were engaged in the occupation of metal workers (excluding electro-plate or precious metals). 16,258 males were employed in transport and communication.

As regards the occupation of females, it may be stated that there is little industrial employment for females in Durham County, the two main industries, coal mining and metal working, being staffed almost exclusively by males. By far the largest proportion of employed females is engaged in personal services, 22,642 being so engaged in the administrative county out of a total of 55,671 females employed. 5,765 females are engaged in professional occupations and 3,833 as clerks, draughtsmen, and typists, while 9,646 are engaged in commercial finance and insurance occupations. 3,746 are engaged as makers of textile goods and articles of dress, while 2,251 are engaged in agricultural occupations.

It is interesting to note that the proportion of females to males occupied in agricultural work is unusually high in the county and equals 21%.

As to the effect of occupation on health in the administrative county there is no doubt that persons employed in coal mining, metal work (including shipbuilding) and quarrying, are relatively more liable to accidents than in most other

industries. In the quarrying of siliceous rock in the western part of the county a certain amount of silicosis occurs. In shipbuilding the riveters in particular are liable to have their hearing permanently affected, while coal miners are apt to suffer from nystagmus, batthand, and other disabilities arising from the nature of their occupation. Generally speaking, however, the chief occupations in the administrative county cannot be regarded as prejudicial from a public health standpoint. It is to be noted that pulmonary tuberculosis is less prevalent among the mining population of the county than in the towns and many of the rural areas. Diseases of the respiratory system are undoubtedly more prevalent and fatal in Durham than in the country generally, but this is not the result of occupation and in my opinion is more likely to be due to the climatic conditions which are so trying in winter and early spring, though the unfortunate housing conditions which exist in many parts of the county, and the serious overcrowding of the dwellings are probably also factors.

Goitre is somewhat seriously prevalent in the western portion of the county, more particularly in Weardale, but the prevalence of this affection is not in any way associated with occupation.

### **BIRTHS AND BIRTH-RATES.**

The number of births registered in the administrative county during 1925 was 23,716, equal to a rate of 23.8 per 1,000 population, while for England and Wales the corresponding rate was 18.3.

The fertility-rate, i.e., ratio of births to females aged 15 to 45 years, was 107.1 per 1,000. The fertility-rate for England and Wales for 1925 is not yet available, but the rate for 1924 was 75.8, which is very much lower than that for the administrative county.

Of the 23,716 births registered 12,196 were males and 11,520 females, while the number of illegitimate births during 1925 was 793, 371 of these being males and 422 females.

The proportion of illegitimate births was 3.3%.



The following table shows the mean population, the mean annual number of births, and the mean annual birth-rate during the last 25 years in quinquennial periods, and it clearly shows how rapidly the birth-rate is falling in the administrative county. Although the population has increased by 200,000 since 1901, the annual number of births has declined by over 5,000.

**Table 3.**

	Mean Population.	Mean Annual number of Births.	Mean Annual Birth-rate.
1901-05.	801,974	28,547	35·59
1906-10.	882,188	29,913	33·97
Mean for 10 years.	842,081	29,230	34·71
1911-15.	956,216	29,194	30·50
1916-20.	*930,859	24,406	26·24
Mean for 10 years.	943,537	26,800	28·37
1921-25.	976,526	5,443	26·06

\*Excluding Darlington which was constituted a County Borough in 1915.

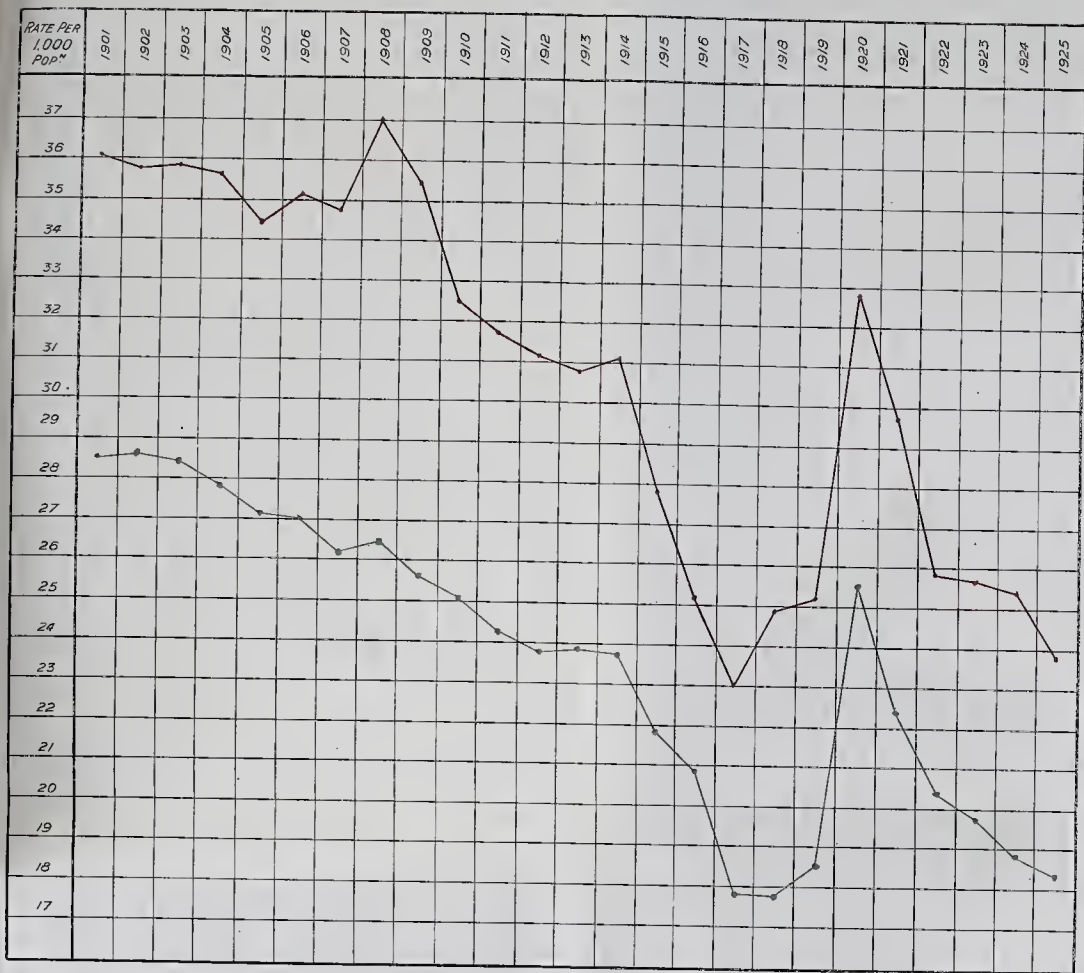
The following diagram shows clearly the fall in the birth-rate in the administrative county and in England and Wales, and it will be noted that until 1914, the date of the outbreak of the Great War, the birth-rate in the administrative county on no occasion fell below 30 per 1,000 population, that immediately following the War the birth-rate began to rise until in 1920 it reached nearly 33 per 1,000, since which year it has persistently fallen to its present figure of 23·8, which figure is the lowest recorded in any year with the exception of the war year 1917.

### **DEATHS AND DEATH-RATES.**

After making allowance for the inward and outward transfers, the total deaths registered in the administrative

CHART A.

Diagram showing the Birth Rate (per 1,000 population) in the Administrative County and England and Wales in each of the years 1901-1925.



— Administrative County.  
— England & Wales.





county during 1925 was 12,594, equal to a gross death-rate of 12.7 per 1,000 population. The rate for England and Wales was 12.2 or 0.5 per 1,000 lower than for the administrative county. With the exception of the year 1923, the gross county death-rate was the lowest ever recorded.

For a true comparison of the death-rate of the administrative county with that for England and Wales it is necessary to take into consideration the age and sex distribution, and the Registrar-General has for this purpose provided a standardising factor, which when multiplied by the true death-rate of the district makes the resulting rate comparable with the conditions existing in the country generally. In Durham County, which is largely industrial, there are relatively fewer older people than in the country generally, and the application of the standardising factor slightly increases the rate for the administrative county, but such rate is approximately comparable with the rate for England and Wales. The corrected death-rate for the county for 1925 was 13.2.

The following table gives particulars of the administrative county gross death-rate during the past twenty-five years in quinquennial periods and indicates a very satisfactory and progressive decline.

**Table 4.**

	Mean Population.	Mean Annual number of Deaths.	Mean Annual Death-rate.
1901-05.	801,974	14,206	17.71
1906-10.	882,188	14,001	15.87
Mean for 10 years.	842,081	14,103	16.74
1911-15.	956,216	14,647	15.5
1916-20.	930,859	13,505	14.5
Mean for 10 years.	943,537	14,076	15.0
1921-25.	976,526	10,364	12.8

The next table gives the gross death-rates for the administrative county and for its urban and rural districts during the past five years and also the comparable rates for England and Wales.

Table 5.

Year.	Urban Districts.	Rural Districts.	Administrative County	England & Wales.
1921	13·68	12·76	13·26	12·1
1922	13·43	12·68	13·10	12·8
1923	12·10	11·70	11·92	11·6
1924	13·16	12·45	12·85	12·2
1925	12·96	12·27	12·66	12·2

The appended diagram shows the total death-rates per 1,000 population in the administrative county and England and Wales in each of the years 1901-25. The high rates in 1918 were caused by the fatal epidemic of influenza which prevailed during that year, a similar rise in the year 1924 being similarly caused. The diagram is particularly interesting as showing how over the period of twenty-five years the death-rate for the administrative county has, generally speaking, more closely approached that of England and Wales.

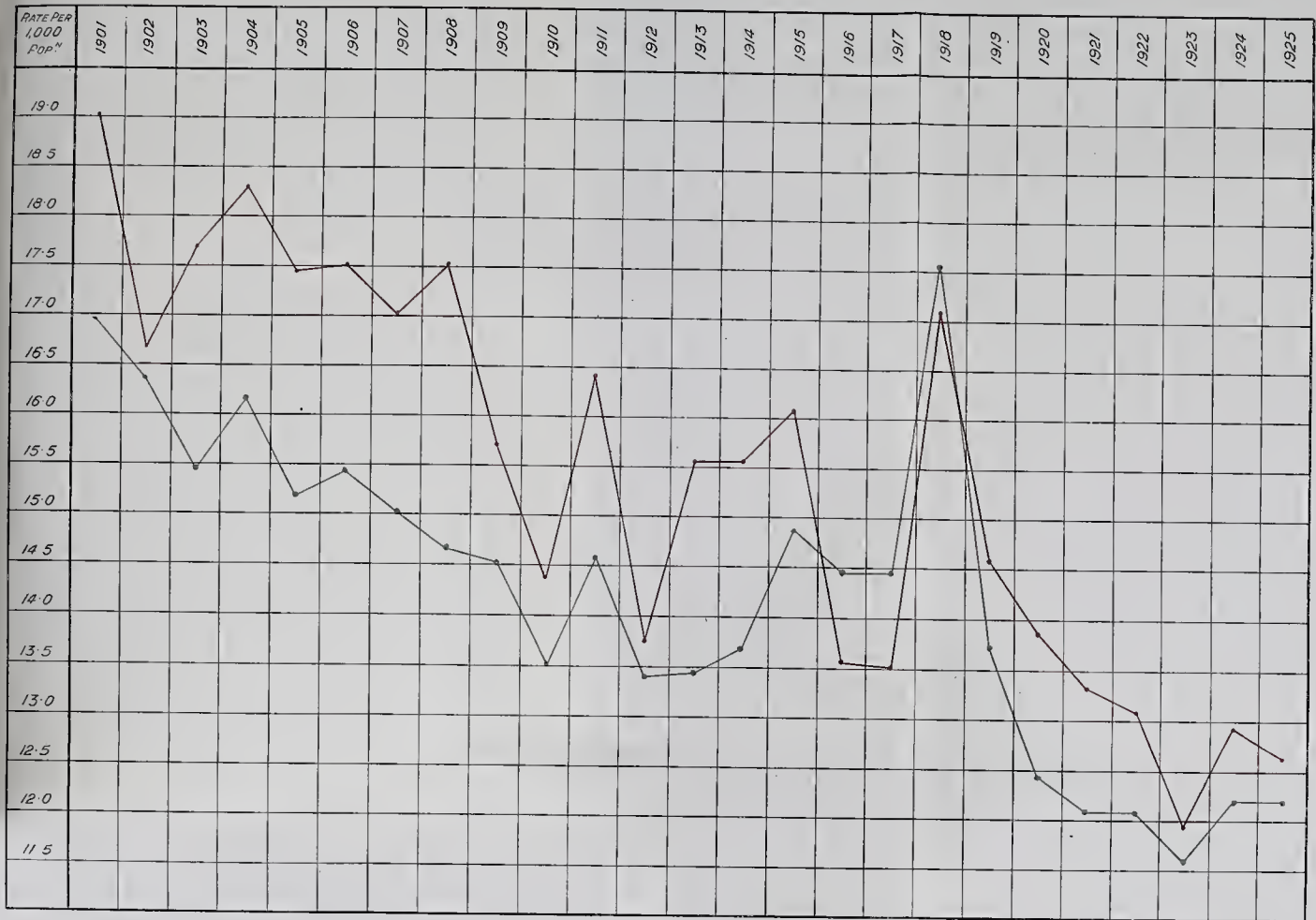
The following table is interesting as showing the diseases causing the highest mortality, and the rates of the administrative county are compared with those for England and Wales for 1924 and 1925.

Table 6.

CAUSES.	Rate per 1,000 Deaths.			
	Administrative County.		England and Wales.	
	1924.	1925.	1924.	1925.
Bronchitis, Pneumonia and other Respiratory Diseases .....	188	183	174	165
Diseases of Heart and Circulation .....	165	174	168	177
Cancer and Malignant Diseases .....	70	73	106	110
All Forms of Tuberculosis .....	89	94	87	85
Premature Birth and Diseases of Early Infancy..	85	81	45	42

CHART B.

Diagram showing the total Death Rate (per 1,000 population) in the  
Administrative County and England and Wales  
in each of the years 1901-1925.



— Administrative County.  
— England & Wales.





The following table gives the chief vital statistics of the administrative county during the year 1925, and of the urban and rural districts, in comparison with those for England and Wales.

Table 7.

Rate per 1,000 Population.	Total Urban Districts	Rural Districts.	Administrative County.	England and Wales.
Birth-rate .....	24·11	23·49	23·84	18·3
Death-rate ("Crude") .....	12·96	12·27	12·66	12·2
Infant Mortality Rate per 1000 births ...	103	99	101	75
Zymotic Death-rate.....	1·09	0·96	1·03	0·61
Smallpox ... ..	...	...	...	0·00
Scarlet Fever ... ..	0·05	0·04	0·05	0·03
Diphtheria.....	0·07	0·04	0·05	0·07
"Fevers" (Enteric & Continued).....	0·01	0·02	0·02	0·01
Measles .....	0·48	0·42	0·45	0·13
Whooping Cough.....	0·21	0·18	0·20	0·15
Diarrhoea & Enteritis (under 2 years)..	0·27	0·26	0·27	0·21
Diarrhoea & Enteritis (under 2 years) per 1000 births.....	11·11	11·25	11·17	8·4
Influenza .....	0·31	0·27	0·29	0·32

Appended to this report are tables giving the chief vital statistics for each of the sanitary districts in the county.

### INFANT MORTALITY.

An unsatisfactory item of the county vital statistics for 1925 is a further increase in the infant mortality-rate, as the subjoined table indicates. It may be noted that the actual deaths under one year of age were the lowest recorded in any year, with the exception of 1923, but the decline in the infant deaths did not keep pace with the decline in the number of births registered. The infant mortality-rate was notably high in the first quarter (105), and the last quarter of the year (112),

and during both these periods there was a high mortality from acute respiratory diseases, the cold inclement weather being no doubt largely responsible for these high rates.

Table 8.

Year.	Births.	Deaths under 1 year.	Rate per 1,000 births.
Mean of the 10 years. 1906-1915.	29,554	4,042	136
1916	23,364	2,712	116
1917	21,322	2,473	115
1918	23,046	2,742	119
1919	23,529	2,711	115
1920	30,771	3,310	107
1921	28,361	3,113	109
1922	25,024	2,479	99
1923	24,987	2,161	86
1924	25,130	2,443	97
1925	23,716	2,399	101

The following table, giving particulars of infant mortality during the last 25 years, indicates, however, very clearly the progressive decline in the county infant mortality-rate, and the subjoined chart also shows graphically the progressive improvement in the rate.

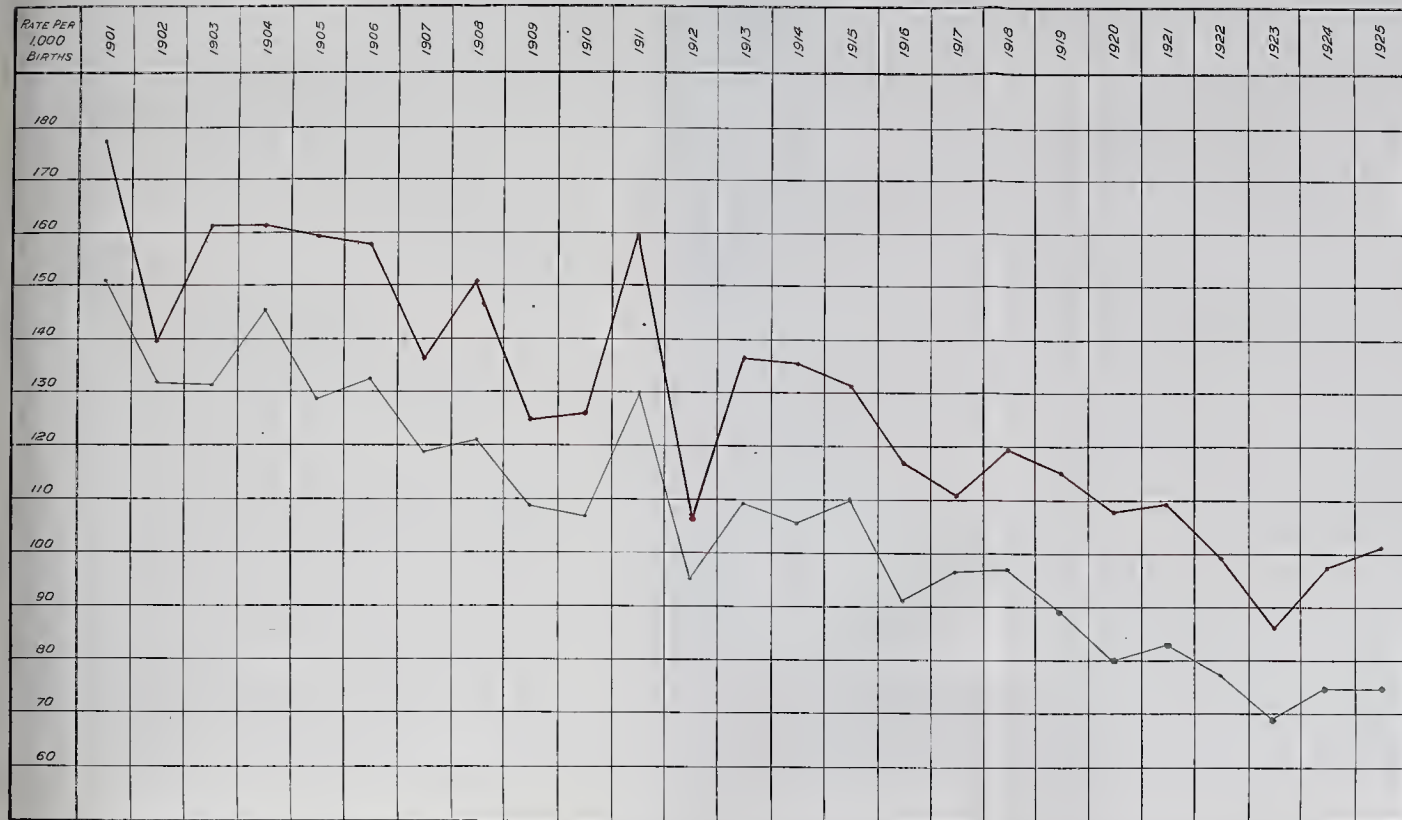
Table 9.

	Mean Annual Number of Births.	Mean Annual Number of Deaths under 1 year.	Rate per 1,000 Births.
1901-05	28,547	4,540	159
1906-10	29,913	4,170	139
Mean of 10 years	29,230	4,355	149
1911-15	29,194	3,913	134
1916-20	24,406	2,789	113
Mean of 10 years	26,800	3,351	123
1921-25	25,443	2,519	98



CHART C.

Diagram showing the Infant Mortality Rate (per 1,000 registered births) in the Administrative County and England and Wales in each of the years 1901-1925.



— Administrative County.  
— England & Wales.



This improvement in the infant mortality-rate, both in this county and in England and Wales, is undoubtedly largely due to educational progress in its widest sense. The reduction in the birth-rate has undoubtedly had an influence, for it is obvious that a mother is able to give better mothering and more general attention to one or two infants than to a large number, but certainly the explanation does not lie wholly in that direction, for in the county of Durham a marked improvement in the infant mortality-rate occurred before there was any material reduction in the birth-rate, and in point of time the reduction in the infant mortality-rate has been intimately related to the stirring up of the public conscience on the matter. Nobody can doubt the statement made by Sir George Newman in a recent report that "The predominant factor in the recent improved health of infancy is to be found in better mothering, proper feeding, and improved domestic conditions, immediately concerned with child welfare." The development of maternity and infant welfare work throughout the country by local authorities and voluntary organisations, and more particularly the advice and instruction given at welfare centres by medical officers and others, by health visitors when visiting the homes of the people, by the medical officers and teachers in the schools, and by district nurses, have had a most beneficial effect.

The mortality among infants during the early days of life unfortunately remains high, and the decline in the infant mortality-rate, particularly during the first four weeks after birth, has been comparatively small compared with the reduction during the other nine months of the first year of life.

The following table gives the infant mortality-rate per 1,000 births at different periods during the first 12 months of life, a comparison between the administrative county of Durham and England and Wales being particularly interesting, the county suffering very materially by the comparison.

Table 10.

Deaths per 1,000 Births Registered.												
	Durham Administrative County.						England and Wales.					
	Under 4 weeks.	4 weeks to 3 months.	Total under 3 months.	3—6 months.	6—12 months.	Total under 1 year.	Under 4 weeks.	4 weeks to 3 months.	Total under 3 months.	3—6 months.	6—12 months.	Total under 1 year.
1908—1912...	...	...	73	24	36	133	40	21	61	21	30	112
1913—1917...	...	...	70	21	36	127	38	18	56	18	28	102
1918—1922...	...	...	65	18	27	110	36	15	51	13	21	85
1923 ...	42	11	53	11	22	86	32	11	43	10	16	69
1924 ...	44	14	58	13	26	97	33	12	45	11	19	75
1925 ...	45	15	60	15	26	101	32	13	45	11	19	75

As shown in an earlier table, the mortality from premature birth and developmental diseases is relatively very high in the county of Durham, and without doubt much of this high mortality during the early days of life is due to ante-natal conditions to which, up to the present, adequate attention has not been given. There is, however, an increasing tendency in most districts to provide ante-natal clinics and to give advice and assistance by means of welfare medical officers, health visitors, and midwives to the expectant mother, and a great deal more might be done by the medical profession as a whole in this direction. The provision of ante-natal clinics, an improved midwifery service, an extension of accommodation in maternity homes and hospitals for expectant mothers who are badly housed or who are suffering from abnormalities or disease, will do a great deal to further reduce the neonatal mortality.

In 1907 I issued a report on the high infant mortality in the county and gave the percentage of deaths of children at varying age periods to total deaths at all ages for the ten years 1894-1903. It is interesting to compare the present position with that which existed more than twenty years ago, and the following table shows the comparison. It also shows that between the ages of 1 and 5 years there has been a marked improvement.

**Table 11.**

Period.	0-3 mths.	0-6 mths.	0-9 mths.	Total under 1 year.	1-2 years.	2-5 years.	Total under 2 years.	Total under 5 years.
1894-1903	16·4	22·9	27·9	32·2	8·6	6·0	40·8	46·8
1921-1925	12·1	15·1	17·6	20·2	6·4	4·7	26·6	31·3

It must be admitted that while a large amount of supervision is given at welfare centres and in the homes by the medical and health visitors' staff in respect of children under



one year of age there has been a comparative neglect of the children living at age periods 1 to 5, owing to the fact that our present staff is quite inadequate to deal with the large number of children living at those age periods. Given the necessary supervision, I have no doubt that the health of these children under 5 years of age would be greatly improved and the mortality further reduced.

As bearing on infant mortality, some information supplied to me by the Superintendent Health Visitor relative to the breast feeding and causes of deaths of infants under twelve months in the Notification of Births Act area of the County Council is interesting.

As regards breast feeding 1,000 cases were selected, and it was found that 68.4% of these were wholly or partially breast fed for 8 months or longer, 49.6% being wholly or partially breast fed for 12 months or longer. The percentage of infants weaned under the age of 4 months was 4.3, and in 2.1%, so far as could be ascertained, the infants received no breast milk at all. Excessively prolonged breast feeding in the county is not quite so general as it was a few years ago. Careful attention is still required with the object of preventing unnecessary premature weaning and also prolonged breast feeding.

As regards the deaths of infants under one year during 1925, 2,025 were registered, and of these 918 died before they were a month old. Special enquiries were made in respect of 826 babies dying under one month old, and it was found that 54.8% of these were premature infants, while 40.8 were born at term, no information respecting the period of gestation being available in respect of 4.40%. As regards the attendance at the time of birth, 67.2% were notified by doctors and 31.5% by certified midwives, there being no complete information in respect of 1.3% of the cases. In 51.6% the doctor was actually present at the birth, and in 5.3% both doctor and certified midwife were present; in 20.1% of the cases a certified midwife alone was present, and in 12.9% it was definitely

stated that no doctor or certified midwife was in attendance at the birth. In 10.1% of the cases no definite information was available. 282 of the 826 infants, equal to 34.1%, lived less than 24 hours after birth, and 7.5% had serious physical defects at birth. As regards legitimacy, 95.4% were legitimate. There were 128 twin babies and 5 triplets, and 166 or 20.1% were first children, 167 second children, and 105 third children. It is interesting to note that one infant was the product of a 25th pregnancy, 4 of a 17th, 5 of a 15th, 2 of a 14th, 8 of a 13th, 14 of a 12th, 16 of an 11th, 17 of a 10th, and 29 of a 9th pregnancy. During the year efforts were made to ensure that all premature and delicate infants, including twins and triplets, received the necessary special care, such as wrapping in cotton wool and oil, and where the services of a district nurse were available they were obtained when required.

During 1925 the County Health Committee provided free of cost, or at a reduced rate, through the midwives, oil and cotton wool for premature and delicate infants whose parents were necessitous.

As regards feeding, information was obtained in respect of 700 infants who died under the age of 12 months, and in 389, equal to 59.6%, breast milk had formed the whole or part of the infant's food throughout its life, in 38.3% the infants were initially breast fed but prematurely weaned, and in 6.1% the infants, so far as could be ascertained, had received no breast milk at all but were artificially fed from birth. Where artificial food was given to the infants, dried milk appears to have been the most generally used, viz., in 222 cases. Fresh cow's milk was the food in 117 cases, goat's milk in 5 cases, condensed milk in 112 cases, and patent food in 76 cases.

As regards stillbirths, of which there were 628 notified in that part of the county in which the Notification of Births Act is administered by the County Council, the following facts

were obtained in respect of 600 of the stillbirths. In 52% of the cases a doctor was in attendance at the birth, in 13.5% both doctor and certified midwife were in attendance, in 16% a certified midwife only was present, and in 9.7% it was stated that no doctor or certified midwife was in attendance. No definite information is available in respect of 8.8% of the 600 cases. 28.1% of the stillbirths occurred in the first pregnancy of the 600 stillbirths, 30.5% were premature, and 60.3% were reported as having occurred at full term, no information being available in respect of 9.2%. Twin pregnancies occurred in 4.7% of the cases, and in 19 cases, equal to 3.2%, the mother died.

### INFECTIVE DISEASES.

The total number of notifiable infective diseases reported during 1925 was 14,330 as compared with 11,290 in 1924. This large increase is almost entirely due to the greater prevalence of smallpox and to the larger number of notified cases of chicken-pox, which disease was made compulsorily notifiable in most sanitary districts owing to the increasing prevalence of smallpox. For the purpose of an accurate comparison with previous years the notifications of chicken-pox for the two years may be excluded, and this would give a figure of 9,765 for the year 1924 and 10,107 for the past year, this increase being much more than accounted for by the larger number of cases of smallpox notified. These figures are equal to an attack rate per 1,000 population of 9.9 and 10.2 respectively.

The following tables give particulars both as to notifications and mortality from the principal infective diseases.



## INFECTIOUS DISEASE (NOTIFICATION) ACT

Weekly Statement of notifiable diseases reported during 1925.

Table 12.

Week ended.		Small-Pox	Scarlet Fever	Diphtheria	Fever					Ophthalmia Neonatorum	Erysipelas	Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis	Pneumonia.	Malaria.	Dysentery.	Polio-Encephalo Myelitis.	Cerebro Spinal Fever.	Encephalitis Lethargica	Acute Polio-Myelitis.	Chicken Pox.
					Enteric or Typhoid	Typhus	Relapsing	Continued	Puerperal												
Jan.	10	...	87	22	...	...	...	...	1	2	10	14	11	45	...	...	...	...	...	...	22
"	17	...	94	12	1	...	...	...	1	4	7	22	18	40	...	...	...	...	...	...	9
"	24	1	94	22	...	...	...	...	...	1	12	17	9	53	...	...	...	...	...	...	23
"	31	3	103	28	...	...	...	...	1	2	7	23	16	43	...	...	...	...	...	...	20
Feb.	7	2	94	34	1	...	...	...	...	3	10	35	25	52	...	...	...	1	...	...	28
"	14	...	85	29	1	...	...	...	...	4	13	41	27	40	...	...	1	2	...	...	40
"	21	2	70	26	...	...	...	...	1	3	5	25	33	42	...	...	...	2	...	...	19
"	28	1	100	16	...	...	...	...	1	6	7	35	22	49	...	...	...	1	...	...	36
Mar.	7	...	85	29	...	...	...	...	1	3	13	29	22	52	...	...	...	1	...	...	29
"	14	1	84	32	...	...	...	...	1	8	17	37	26	29	...	1	...	5	...	...	48
"	21	2	93	14	...	...	...	...	2	6	7	31	28	49	...	...	...	4	...	...	42
"	28	1	80	39	1	...	...	...	5	1	9	24	20	40	...	...	...	3	...	...	56
April	4	3	85	11	1	...	...	...	1	3	9	34	28	39	...	...	...	...	...	...	59
"	11	1	72	12	2	...	...	...	1	...	10	24	22	33	...	...	...	1	...	...	27
"	18	7	66	14	1	...	...	...	1	4	5	33	28	48	...	...	...	1	...	...	44
"	25	5	74	17	...	...	...	...	3	5	10	68	45	42	...	...	...	1	...	...	49
May	2	6	53	11	2	...	...	...	1	...	19	28	27	32	...	...	...	1	...	...	39
"	9	11	67	16	5	...	...	...	...	1	12	36	27	24	...	...	1	...	...	...	42
"	16	2	81	18	4	...	...	...	...	2	6	44	32	36	...	...	...	...	...	...	48
"	23	3	61	12	2	...	...	...	1	...	4	43	29	42	...	...	...	4	...	...	68
"	30	2	57	12	2	...	...	...	...	2	12	29	26	44	...	...	...	3	...	...	43
June	6	2	61	10	2	...	...	...	1	...	9	27	17	23	...	...	...	3	...	...	73
"	13	4	36	16	...	...	...	...	1	4	5	36	25	27	...	...	...	...	...	...	72
"	20	7	43	13	1	...	...	...	...	1	5	25	32	39	...	...	...	2	...	...	83
"	27	10	37	12	4	...	...	...	...	3	2	19	18	22	...	...	...	...	...	...	68
July	4	19	44	9	1	...	...	...	...	3	12	33	36	25	...	...	...	1	...	...	85
"	11	38	49	13	2	...	...	...	1	3	3	29	20	25	...	...	...	1	1	...	97
"	18	17	47	10	2	...	...	...	...	4	6	22	19	13	...	...	...	3	...	102	
"	25	20	59	15	1	...	...	...	3	1	11	24	20	16	...	...	...	...	1	...	95
Aug.	1	4	56	16	1	...	...	...	...	5	7	19	11	19	...	...	...	1	...	...	84
"	8	13	34	13	5	...	...	...	1	5	3	27	13	16	...	...	...	...	...	...	61
"	15	8	40	20	2	...	...	...	...	3	10	24	13	22	...	...	...	...	...	...	70
"	22	8	60	6	3	...	...	...	1	2	4	22	12	13	...	...	...	2	...	...	48
"	29	6	43	14	6	...	...	...	...	2	1	23	13	20	...	...	1	...	1	...	53
Sept.	5	7	46	9	4	...	...	...	1	6	11	22	26	7	...	...	...	1	1	...	48
"	12	9	43	16	4	...	...	...	...	5	5	17	13	11	...	...	...	1	...	...	35
"	19	8	55	18	4	...	...	...	...	4	11	24	18	13	...	...	...	2	...	...	37
"	26	6	58	13	3	...	...	...	1	6	9	23	27	22	...	...	...	...	...	...	45
Oct.	3	8	55	15	1	...	...	...	...	4	3	19	18	24	...	...	...	1	...	...	66
"	10	8	48	23	...	...	...	...	1	6	17	14	19	25	...	...	...	1	...	...	86
"	17	18	72	19	...	...	...	...	1	1	12	28	19	22	...	...	...	...	...	...	116
"	24	23	73	17	...	...	...	...	2	6	16	22	9	22	...	...	...	...	...	...	110
"	31	35	75	14	1	...	...	...	1	6	13	20	15	45	...	...	...	1	...	...	162
Nov.	7	34	72	12	...	...	...	...	1	5	12	31	24	41	...	...	...	1	...	...	201
"	14	48	62	15	1	...	...	...	...	3	9	23	16	27	...	...	...	1	...	...	158
"	21	43	72	14	...	...	...	...	...	5	12	20	13	43	...	...	...	1	...	...	233
"	28	69	45	15	2	...	...	...	1	2	10	21	6	47	...	...	...	1	...	...	164
Dec.	5	80	61	11	4	...	...	...	...	4	16	16	10	46	...	...	...	3	1	...	219
"	12	83	56	12	...	...	...	...	1	3	16	10	12	37	...	...	...	2	...	...	197
"	19	110	49	10	...	...	...	...	...	5	18	22	14	31	...	...	...	1	...	...	229
"	26	90	46	16	...	...	...	...	3	1	12	12	8	14	...	...	...	1	...	...	163
Jan. 2-1926	88	53	15	1	...	...	...	...	...	4	15	14	11	37	...	...	...	1	...	...	174
Total for the Year		976	3335	857	78	...	...	...	43	172	499	1360	1048	1668	...	...	1	3	62	5	4225



Table 13.

TABLE GIVING FOR EACH YEAR THE NUMBER OF DEATHS AND THE DEATH-RATE  
FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES DURING THE TEN YEARS,

1916 TO 1925.

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	Mean of 10 years.
Estimated Population ...	926,986	926,986	926,986	929,670	936,492	955,344	968,287	975,600	988,600	994,800	952,975
Small-pox .....	...	...	...	1	...	...	...	...	1	...	...
Scarlet Fever ...	62	33	71	94	107	55	22	37	32	46	56
Diphtheria .....	192	170	140	171	179	122	77	61	65	53	123
Enteric and Continued Fever	79	29	40	22	21	15	15	12	24	16	27
Measles.....	55	364	210	197	212	173	61	428	61	450	221
Whooping Cough	222	155	312	90	119	218	189	223	184	194	191
Diarrhoea under 2 years.	328	466	420	317	402	586	179	228	304	265	349
TOTAL DEATHS	938	1217	1193	892	1040	1169	543	989	671	1024	967
Deaths per 1,000 Population.....	1·01	1·31	1·28	0·96	1·11	1·21	0·56	1·01	0·68	1·03	1·02

Table 14.

TABLE SHOWING THE NUMBER OF CASES OF CERTAIN INFECTIOUS DISEASES  
NOTIFIED IN THE ADMINISTRATIVE COUNTY, 1916-1925.

	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	Total of 10 years, 1916-25.
Small-pox .....	1	...	...	16	1	...	4	37	21	976	1,056
Scarlet Fever ...	2,761	1,704	2,313	4,086	5,113	3,043	1,844	3,111	4,096	3,335	31,406
Diphtheria .....	1,377	1,049	991	1,326	1,451	1,121	663	757	923	857	10,515
Enteric Fever ...	533	198	175	118	70	88	63	63	91	78	1,477
Continued Fever	6	2	...	2	1	2	1	4	...	...	18
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever ...	...	...	...	...	...	1	...	...	...	...	1
Puerperal Fever	24	22	19	25	50	40	34	25	41	43	323
Erysipelas .....	481	329	328	384	454	391	314	351	472	499	4,003
Total .....	5,183	3,304	3,826	5,957	7,140	4,686	2,923	4,348	5,644	5,787	48,799
Attack Rate per 1,000 Living...	5.5	3.5	4.1	6.4	7.6	4.9	3.0	4.5	5.7	5.8	5.1

The death-rate from the seven principal zymotic diseases, which constitute the zymotic death-rate, increased from 0.68 per 1,000 population to 1.03, this increase being almost entirely due to the high mortality from measles, which caused 450 deaths as compared with 61 in 1924, though there was a slightly increased mortality from diarrhoea among infants.

The following diagram shows the death-rate from the seven principal zymotic diseases during each of the last twenty-five years both for the administrative county and England and Wales. Generally speaking, the graph for the county is very much higher than for the country generally, though it is satisfactory to note that during the last ten years the two graphs have more closely approximated in most years, and in 1922 the zymotic death-rate for the county was actually less than that for England and Wales.

### SMALLPOX.

The number of cases of smallpox notified in the administrative county increased from 21 in 1924 to 976 in the following year, the prevalence considerably increasing during the latter half of 1925.

In some parts of the north-west of the county the disease became seriously epidemic, as is evident from the fact that in the Blaydon urban district 413 cases occurred, and in the Ryton urban district 90 cases.

Having regard to the fact that a large proportion of the population of the county were not protected by vaccination, I summoned a conference at the Shire Hall, Durham, on the 14th May, of all medical officers of health in the administrative county. The conference was largely attended and the following resolutions were passed, a copy of which was forwarded to every sanitary authority and smallpox hospital authority in the county:—

- (1) That this Conference of Medical Officers of Health and Medical Officers of Smallpox Hospitals in



TABLE 85.

Table shewing the total number of certified midwives in each sanitary district with the conditions under which they were certified by the Central Midwives Board, and the number of such midwives who gave notice of their intention to practise, during each of the ten years,

1916-1925.

DISTRICT.	POPULATIONS.		Total Number of Certified Midwives.										Conditions under which Certificate was granted.										Total number who notified their intention to practise.											
	Census 1921. Adj.	Registrar General's Estimate, 1925.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	*1916.	*1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.		
<div>URBAN DISTRICTS.</div>																																		
Durham Borough	17,543	17,380	16	14	13	16	16	16	16	16	15	18	10	6	8	6	8	6	11	5	11	5	11	4	12	4	13	4	14	4	8	7	3	
Hartlepool	21,220	21,940	5	5	4	2	2	2	3	3	4	3	2	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Jarrow	36,030	36,540	5	7	7	9	7	6	8	9	9	10	2	3	2	3	4	3	6	3	4	3	3	5	6	3	6	6	3	3	3	5	5	3
Stockton	64,943	68,000	31	29	26	27	24	28	29	32	30	33	18	13	18	11	15	11	17	10	15	9	19	9	20	9	24	8	23	7	26	7	14	
Annfield Plain	16,728	17,070	1	1	1	1	2	2	2	2	3	3	1	1	1	1	1	1	1	1	1	1	1	2	3	3	3	3	3	3	3	3	3	3
Barnard Castle	4,795	4,848	2	3	3	3	3	3	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Bonfieldside	9,089	9,097	1	1	1	2	1	1	2	7	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Billingham	9,187	9,187	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bishop Auckland	14,471	14,340	9	7	7	9	9	8	11	12	12	11	8	5	4	3	4	3	4	5	4	4	5	4	4	4	4	4	4	4	4	4	4	4
Blaydon	33,473	35,370	8	7	8	9	9	9	9	9	7	7	8	5	3	4	3	4	4	6	4	6	3	6	3	6	3	4	4	4	4	4	4	4
Brandon and Byshottles	18,856	19,600	3	6	4	3	4	2	1	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Chester-le-Street	15,786	17,880	4	4	4	4	3	3	3	3	3	3	4	1	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Consett	13,120	13,201	4	5	2	3	2	3	2	4	5	5	6	...	2	6	1	5	1	4	...	2	3	2	1	3	4	1	4	3	4	3	5	4
Crook	12,863	13,510	2	2	3	3	3	3	4	4	4	5	...	2	6	1	5	1	4	...	2	3	2	1	3	4	1	4	3	4	3	5	4	
Felling	26,475	27,910	7	6	5	5	5	6	6	8	7	7	1	6	...	5	1	4	1	4	1	4	1	4	3	3	6	2	4	3	4	3	5	4
Hebburn	17,492	18,220	2	...	...	1	2	1	2	2	1	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hetton-le-Hole	24,470	25,980	...	...	...	2	3	3	4	4	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Houghton-le-Spring	10,331	11,170	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Leadgate	5,227	6,078	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ryton	14,439	15,600	3	3	4	4	5	6	6	6	8	7	1	2	1	2	2	2	2	2	2	2	3	2	4	2	4	2	4	2	4	2	4	2
Seaham Harbour	17,181	18,650	3	2	2	2	4	6	7	6	10	9	3	2	2	1	1	2	1	2	1	2	1	4	1	6	1	7	2	6	2	6	2	6
Shildon	14,341	14,660	2	3	3	3	3	3	4	4	5	3	...	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Southwick-on-Wear	14,823	15,870	4	4	6	5	3	4	4	4	5	5	...	4	...	4	2	4	2	3	2	1	3	1	4	1	4	1	4	1	4	1	3	2
Spennymoor	18,468	18,830	2	2	1	1	2	2	2	2	3	3	2	2	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stanhope	1,948	1,884	3	3	4	5	3	5	5	5	6	6	2	...	2	1	2	1	3	1	3	2	2	1	4	1	4	1	4	1	4	1	4	
Stanley	25,497	27,640	2	1	1	1	2	2	2	2	2	3	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taunfield	10,521	10,730	2	1	1	1	2	2	2	2	2	3	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tow Law	4,123	4,449	2	2	2	2	2	2	2	2	2	2	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Washington	17,920	17,920	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whickham	19,389	20,580	4	6	4	4	3	3	4	5	6	5	3	1	5	1	3	1	3	1	2	1	3	1	4	1	5	1	4	1	5	1	4	1
Willington	9,311	9,847	6	5	6	5	7	8	9	8	10	9	1	5	1	4	2	4	2	3	4	3	5	3	7	2	6	2	8	2	7	2	3	4
<div>RURAL DISTRICTS.</div>																																		
Auckland	62,121	62,450	10	11	7	7	7	8	7	8	8	10	3	7	4	7	2	5	2	5	2	5	3	5	2	5	3	5	3	5	6	4	6	4
Barnard Castle	12,056	11,620	1	1	2	2	2	4	4	4	4	3	3	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chester-le-Street	72,465	57,050	11	12	12	13	11	10	12	13	14	14	8	3	8	4	9	3	10	3	9	2	9	1	11	1	13	14	14	14	14	14	14	14
Darlington	9,811	9,992	4	4	4	5	5	6	6	7	7	7	3	1	3	1	3	1	3	2	3	2	4	2	5	2	6	5	2	6	3	11	11	3
Durham	31,968	33,050	9	7	7	7	6	8	10	9	14	14	5	4	3	4	3	4	3	6	3	7	3	6	3	7	14	7	17	6	20	3	13	13
Easington	76,493	82,630	17	21	18	16	16	17	15	21	23	23	7	10	11	10	8	10	8	8	8	8	8	8	7	14	7	17	6	20	3	13	13	
Hartlepool	3,710	3,937	1	2	2	2	4	3	3	6	5	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Houghton	27,664	29,270	3	4	4	4	3	4	3	3	6	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Lauchester	34,495	36,090	3	4	4	2	4	4	4	4	6	6	7	2	1	3	1	3	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Sedgefield	37,606	38,810	8	8	8	11	12	14	15	18	15	16	3	5	3	5	3	5	6	5	8	4	10	4	11	4	11	4	13	3	8	8	6	6
South Shields	19,354	18,020	9	7	8	9	11	7	9	10	10	8	1	5	2	6	2	7	2	7	2	9	2	5	2	7	2	8	2	8	2	1	1	1
Stockton	14,966	6,761	8	7	7	6	9	10	10	11	3	6	1	7	1	6	2	5	1	5	4	5	6	4	6	4	7	4	7	4	2	6	6	6
Sunderland	30,947	32,070	5	4	3	7	7	7	10	9	10	14	2	3	1	3	...	3	3	4	4	3	4	3	4	3	7	3	7	3	12	2	4	3
Weardale	9,644	9,450	3	3	4	3	3	4	4	5	6	5	3	...	3	...	4	...	3	...	3	...	4	...	4	...	4	...	5	...	...	...	...	...
Administrative County	953,344	994,800	229	227	218	225	228	250	264	301	314	328	111	118	113	114	110	108	125	100	138	90	164	86	183	81	224	77	240	74	267	61	133	125
<div>Certified Midwives who gave notice of their intention to practise within the county area, who reside outside thereof.</div>																																		
<div>2 7 ... 12 14 12 15 18 16 25</div>																																		





the County of Durham is strongly of opinion, in view of the serious danger which at present exists of smallpox becoming epidemic in the North of England, that every smallpox hospital authority should at once, in consultation with their medical officer, review the adequacy of the accommodation provided in their hospital for cases of smallpox, and where necessary, at once take steps to provide additional beds; also that each hospital authority should at once make such arrangements as will enable them to provide further temporary hospital accommodation for cases of smallpox at short notice.

(2) That this Conference recommend to the Smallpox Hospital Authorities of the County of Durham, which have provided accommodation for smallpox cases, that they should at once enter into a pooling arrangement by which smallpox patients from any district in which the smallpox hospital beds are fully occupied can be at once admitted into the hospital of another district where beds may at the time be available, the full cost incurred by the hospital authority receiving the patients to be refunded by the hospital authority of the district from which the patient was removed.

(3) That the importance of every smallpox hospital being provided with an efficient steam disinfecting apparatus be urged upon the hospital authorities in the county.

(4) That as a temporary measure, and with a view to assisting in the detection of unrecognised cases of smallpox, the notification of chicken-pox be made compulsory in every sanitary district.

The importance of vaccination was urged by posters and in other ways throughout the county. It is satisfactory to note that by the end of the year chicken-pox was compulsorily notifiable in nearly all the sanitary districts in the county.

The other recommendations of the conference also received the careful attention of the local authorities con-

cerned, and steps were taken to provide increased accommodation at the smallpox hospitals of the Lanchester Joint Hospital Board and the Blaydon, Ryton and Whickham Joint Hospital Committee.

Moreover, a conference was summoned by the Stockton Borough Council of the sanitary authorities in south-east Durham. The object of the conference was to consider the formation of a joint smallpox hospital board for south-east Durham, and representatives attended from the County Council, West Hartlepool County Borough, Stockton Borough, Hartlepool Borough, Hartlepool Port Sanitary Authority, Billingham Urban District, and the rural districts of Hartlepool and Stockton. The proposal brought forward was to erect on a suitable site an up-to-date smallpox hospital to accommodate thirty-six patients, the hospital to be extended, if necessary, to hold sixty patients, at an estimated cost for the thirty-six beds of about £25,000. Although a resolution was adopted in favour of the formation of a joint hospital board and the erection of the hospital in question, the representatives of the Hartlepool authorities expressed the desire to consult the Middlesbrough Corporation as to whether they would be willing to receive smallpox patients into their borough hospital from the districts which would be served by the joint hospital board, though it was clearly stated by the representatives of the Borough of Stockton, the Billingham urban district, and Stockton rural district, that their authorities would not agree to send their cases to Middlesbrough under any circumstances. Eventually it was decided to call another conference when the Middlesbrough Corporation's reply to the request of the Hartlepool authorities was received. Unfortunately the matter proceeded no further as the Hartlepool authorities entered into an agreement with the Middlesbrough Corporation for the treatment of their cases in the Middlesbrough Hospital, and subsequently the Stockton Borough Council, who by arrangement receive smallpox cases into their hospital from the Billingham urban district and the Stockton rural district, decided to continue to use their



existing hospital after improving and reconditioning it. It is, in my opinion, unfortunate that the proposal to erect a joint smallpox hospital for the populous south-eastern area of the county did not mature.

Although no formal agreement has been entered into for the pooling of the existing smallpox hospital accommodation in the administrative county there was a general agreement among the hospital authorities concerned to take in cases from other districts when accommodation was available and as a matter of fact this pooling arrangement existed in practice.

The smallpox hospital of the Blaydon, Ryton and Whickham Joint Hospital Committee had for many years been used by the County Council as a hospital for tuberculous cases, arrangements being made when that hospital was taken over by the County Council by which cases from the Joint Hospital Committee's area were sent to the smallpox hospital of the Durham and Brandon Joint Hospital Board. In May the County Council was required by the Joint Hospital Committee to hand over the Sealburns Hospital to the Joint Committee owing to the need of additional beds for smallpox cases.

Similarly, in November, the County Council was also required to hand over the Black Fell Smallpox Hospital (30 beds), which had been used for the treatment of tuberculous women patients, to the Chester-le-Street Joint Hospital Board.

Towards the end of the year the smallpox hospital accommodation in the county became inadequate in certain areas and there was undoubtedly considerable overcrowding of several hospitals.

It is notable that no deaths from smallpox occurred in the administrative county during the year, but that the notified cases of smallpox were cases of that disease cannot be doubted, the rash in quite a large proportion of the cases being very definite and the constitutional symptoms of the disease marked.

Although in some districts there is still a strong prejudice



against vaccination, the fear of contracting smallpox undoubtedly induced a very large number of persons in the administrative county to take advantage of the protection offered by vaccination.

Owing to the mildness of the disease it not infrequently happened that the calling in of medical advice was delayed, while in other cases the disease was not always promptly diagnosed and consequently the spread of the infection was facilitated. In one outbreak in an isolated village in the Auckland rural district, which was personally investigated by myself, the nature of the disease had not been diagnosed, the patients being treated for other ailments, and in consequence a somewhat serious extension of the disease occurred, though fortunately it was limited to the village in question.

### **SCARLET FEVER.**

Although this disease declined in prevalence, 3,335 cases being notified as compared with 4,096 in the previous year, there was an increased mortality, 46 deaths occurring as compared with 32 in 1924. The case mortality, however, was very low.

In most sanitary districts a large proportion of cases of scarlet fever are isolated in hospital, but under our present system of sanitary administration, especially having regard to the mild type of the disease in the majority of cases which results in a number of missed cases, it is doubtful whether hospital isolation is effective in controlling the prevalence of the disease. It is obvious, however, that hospital accommodation for scarlet fever cases must be provided in all well administered districts for the purpose of accommodating patients whose home conditions are bad or where the non-isolation might result in a serious spread of the disease. Provision must for instance always be made for cases occurring in institutions, among laundry workers, those engaged in the milk trade, etc., and the suggestion which has been put forward that the provision of isolation hospital

accommodation for cases of scarlet fever is not necessary is, in my opinion, to be deprecated.

### **DIPHTHERIA.**

The number of cases of diphtheria notified was 857 as compared with 923 in the previous year. As will be seen from Table 1<sup>st</sup> there has been during the last few years a considerable decline in the prevalence of this disease, and the reduction in the mortality has been relatively even greater during the same period. It will be noted that the number of deaths during 1925 (53) was the lowest recorded during any of the ten years, and was less than one-half the average number of deaths during the last ten years.

It is difficult to definitely account for the marked diminution in the prevalence of diphtheria during recent years, though I hold the view that the greater care taken in the supervision of ailing school children has had a beneficial effect, while it is likely that more careful isolation of the infected person has been of value. It can hardly be said that improvement in housing or reduction in overcrowding of dwellings has had a bearing on the matter, though it is definitely established that diphtheria is easily spread by direct infection.

As regards the marked reduction in mortality during recent years, this, I think, can be largely attributed to the more general use of anti-toxin in the early stages of the disease. The importance of local authorities providing medical practitioners with this valuable remedial agent free of charge has been urged by me on many occasions, and the attention of the district sanitary authorities has been specially drawn to the matter by the County Council. It is satisfactory to know that in every sanitary district in the county, with the exception of Crook and the rural district of Hartlepool, diphtheria anti-toxin is now supplied free of cost to medical practitioners requiring it, and in the Hartlepool rural district the matter is receiving favourable consideration.

### ENTERIC FEVER.

Enteric fever was rather less prevalent than in the previous year, the number of cases falling from 91 to 78, while there were only 16 deaths in 1925 as compared with 24 in the previous year.

Enteric fever is rightly regarded as a preventable disease and its prevalence indicates sanitary deficiencies, bad administration, or both. It is therefore a great cause for satisfaction that there has been in the administrative county during the last thirty years such a remarkable diminution both in the prevalence of, and mortality from, this disease. It is interesting to note that this marked diminution in prevalence and mortality has been accentuated since the end of the War. In succeeding quinquennia, commencing in the year 1891, the death-rate per 1,000 population from enteric fever in the administrative county was 0.37, 0.23, 0.17, 0.14, 0.09, 0.03, and 0.02, and the administrative county, which at one time had the unenviable record of a greater prevalence of this disease than any other county now has a prevalence and mortality which is only very slightly in excess of that for England and Wales and compares favourably with many other similar county areas. This is all the more remarkable because it will be seen from Table 50 that there is still in most sanitary districts a large number of ashpit privies, and the small ash-closets or ash-privies, which involve the retention in close proximity to dwellings of offensive, decomposing matter likely to cause nuisances and vitiation of the atmosphere.

During recent years one of the greatest improvements in communal hygiene in this county has been more regular and systematic scavenging and removal of house refuse, and this has undoubtedly had a marked effect in reducing the incidence of enteric fever. The paving of streets, back streets, and house yards; the diminution of horse traffic; and generally improved environmental cleanliness have been factors in the reduction of enteric fever prevalence, while greater purity of water supplies, better drainage, the observance of greater



cleanliness in the production and storing of milk, and the reduction in the risk of infection from the consumption of shell-fish, have also been responsible for the reduction of enteric fever generally, while our increased knowledge of personal hygiene, combined with better precautionary measures for the avoidance of the spread of enteric fever by direct infection have also favourably influenced the incidence of the disease.

As regards the distribution of the enteric fever cases notified during 1925, the largest number (11) occurred in the Auckland rural district among the rural areas, while in the urban districts the greatest incidence was in the small Leadgate urban district, where six cases occurred. Four of these latter cases were notified during the first week in December, all in one house, and it appears to be clear from the report of the district medical officer of health that they had become infected by a previous case which had been sent to the Royal Infirmary, Newcastle-on-Tyne, and had subsequently been notified on the 23rd November by the medical officer of health of Newcastle-on-Tyne, as a case of enteric fever. In the yard of the house where the case occurred there is a common privy.

As regards the Auckland rural district, 9 of the 11 cases notified during the year occurred in the third quarter, and the subject is dealt with at some length by the district medical officer of health in his report. Six of the cases occurred in the isolated district of Woodland, all with a common source of infection, as it was found that the patient who introduced the infection was treated in hospital and the month after her discharge all members of the same household were affected. Four other cases occurred at Coundon, 3 of them synchronously in one street, and a common source of infection in a female carrier, a sister of the first patient, was suspected, though bacteriological examination failed to confirm the suspicion.

Dr. Donald, the district medical officer of health, points



out in his report that all the cases of typhoid fever notified in the district during the year were found to have occurred in families where the conservancy system of refuse disposal was in use. He adds: "In view of the above observations on the "typhoid 'carriers,' it will be obvious that such a conservancy "system greatly increases the chance of spasmodic outbreaks "of typhoid fever. On this account I respectfully urge your "attention as a committee to an extension of the water-carriage "system wherever possible."

Although the reduction in the prevalence of enteric fever in this county has been so remarkable, there being also almost synchronously a marked decline in the mortality from epidemic diarrhoea among young children, another filth disease, one cannot expect these two preventable diseases to be stamped out so long as midden and ash-privies are used in any number in our industrial areas. I entirely agree with the view expressed by the medical officer of health of the Auckland rural district, and I am quite certain, as I have stated on many previous occasions, that the general adoption of the water-carriage system in all districts where there is a sufficient water supply and proper sewers, would not only result in a higher standard of health throughout the county but would be economically sound.

### **PUERPERAL FEVER.**

There were 43 cases of this disease notified in 1925, or 2 more than in the previous year. The cases were fairly distributed throughout the year, the largest number of cases being reported during the last week of March, and in only three other weeks during the year were as many as 3 cases notified from the administrative county.

The deaths increased from 18 in 1924 to 25, 17 of these occurring in the urban areas. Special enquiries were made into every maternal death, including all deaths from puerperal sepsis; and every case of a rise in temperature in respect of which midwives called in medical assistance was also the subject of special enquiry.

In many cases of puerperal sepsis early institutional treatment is desirable, especially in a county like Durham where such a large proportion of the dwellings are unsuitable for the nursing of such cases. An arrangement has been made with the Maternity Hospital, Newcastle-on-Tyne, for the accommodation of cases of puerperal sepsis occurring in the administrative county, and three cases of puerperal sepsis were admitted into the Newcastle Maternity Hospital from the county area during the year.

### **OPHTHALMIA NEONATORUM.**

The notified cases of ophthalmia neonatorum totalled 172, a number which compares favourably with that for 1924 (220) and 1923 (188).

Every case of this disease reported by midwives is enquired into by the County Midwives Inspector, and the health visitors during their home visiting make special enquiries as to the presence of this disease in new-born children and promptly report any case coming to their notice. During 1925, 647 cases of inflammation of the eyes were reported on by the county health visitors, the total number of visits paid to these cases being 1,876. Of the cases reported on by the health visitors the eyes in 617 cleared up satisfactorily, in 3 instances the eyes were damaged, and one of the children became blind and subsequently died. Ten other cases died before the eyes were normal, and the eyes of 14 were reported to be in an unsatisfactory condition at the time of the last visit.

Medical practitioners throughout the county area have also been requested to at once report any case in which institutional treatment is desirable, and they have been informed that the County Council is prepared, whenever possible, to provide necessary institutional treatment, an arrangement for that purpose having been made between the County Council and the Guardians of the Hartlepool Union for the accommodation of cases in their Howbeck Infirmary, where there is a resident medical officer and a visiting ophthalmic surgeon.

Unfortunately, owing to the congested state of the voluntary hospitals in or adjoining the county area, it is never possible to ensure the admission of a case of ophthalmia into these institutions although every effort has been made to arrange for accommodation. In a number of instances unnecessary suffering and risk of damage to the eyes is incurred owing to the delay on the part of medical practitioners in recommending institutional treatment of cases of ophthalmia neonatorum. Infants suffering from gonococcal ophthalmia are not infrequently sent as out-patients to eye hospitals when nothing short of admission to an institution where unremitting attention is given by a skilled nurse will be effective.

Although local supervising authorities under the Midwives Acts receive, through the midwives, notifications of sending for medical help in respect of inflammation of the eyes, notifications of the disease required to be sent by medical practitioners are transmitted to the district medical officers of health instead of, as is desirable, being sent to the medical officers of health responsible for the administration of the Notification of Births Acts and maternity and infant welfare schemes.

The notifications of cases of ophthalmia neonatorum during the last five years are shown in the following table:—

**Table 15.**

	1921	1922	1923	1924	1925
Number of Notifications received .....	212	210	188	220	172

The report on the administration of the Blind Persons Act (see page 127) shows that a considerable proportion of the total blind persons in the county develop blindness during the first year of life.



## ENCEPHALITIS LETHARGICA.

Sixty-two cases of this disease were notified during 1925, there being a considerable decline in the number of notifications received compared with 1924, when 110 cases were reported. The deaths numbered 41 as against 44 in the previous year.

The greatest number of deaths (6) occurred in the Washington urban district, and one or more deaths were registered in twenty-three of the sanitary districts of the county.

The disease has been the subject of circulars issued by the Ministry of Health to local authorities, but unfortunately at present comparatively little is known either of its etiology or means of spread. Not only is the disease difficult to control, owing to our want of knowledge of its behaviour, but a serious problem is arising as to the care and treatment of the moral and social wrecks who survive an attack of this disease.

In 1924, as stated in my last report, I communicated with the district sanitary authorities, with the approval of the County Health Committee, suggesting the desirability of setting apart some of the beds provided for enteric fever cases for the treatment of encephalitis lethargica, and quite a number of local authorities agreed to adopt my suggestion.

The following table gives the number of cases of encephalitis lethargica notified, together with the number of deaths registered, during the last five years.

**Table 16.**

Year.	Number of	
	Notifications.	Deaths.
1921 ... ..	20	8
1922 ... ..	8	12
1923 ... ..	7	11
1924 ... ..	110	44
1925 ... ..	62	41

### **CEREBRO-SPINAL FEVER, ETC.**

Only 3 cases of this disease were notified during 1925, as were also 1 of polio-encephalo myelitis and 5 of acute polio-myelitis.

### **MEASLES.**

This disease was extremely prevalent during the second quarter of 1925, and during the year 450 deaths resulted. The epidemic was very widespread in all the industrial areas. Owing to the fact that compulsory notification is not operative, the exact number of cases cannot be recorded, but in most of the industrial areas the mortality was high. The disease was responsible for 36 deaths in Stockton, 31 in Hebburn, 15 in the Chester-le-Street rural district, 39 in the Easington rural district, and in twenty of the sanitary districts more than ten deaths occurred during the year. It is interesting, however, to note that in what may be called the country districts, viz., the urban districts of Barnard Castle and Stanhope, and the rural districts of Barnard Castle, Darlington, Hartlepool, and Stockton, not a single death occurred, while the urban district of Billingham also suffered no mortality. The registered deaths were equal to a mortality of 0.45 per 1,000 population as compared with 0.13 for England and Wales. It will be seen from Table 13, on page 28, that the deaths during 1925 were higher than in any of the previous nine years. The table also shows the biennial character of measles epidemics.

While the large number of deaths from this disease is to be deplored, especially as it is well-known that attacks of measles very often pave the way for other disease with subsequently impaired health in later life, there is some reason to believe that the attention given to personal hygiene to-day is having a marked influence in limiting the mortality from measles. The epidemic prevalence of measles in 1925 was at least as great as in the year 1915, when approximately 1,000 deaths occurred during the first six months of the year, and in both 1915 and 1925 the epidemic prevalence of the disease was greatest in the same months. The rapid development of our health visitors service and of district nursing, involving

advice given at the homes to parents as to the care of their children, has, I am convinced, had a marked influence in diminishing the mortality from measles.

The mortality from measles is almost entirely confined to the children of our working population, and the great majority of the deaths are the result of complications following the disease, which, with proper attention and nursing, could, in most cases, be prevented. Even to-day, however, the general public has failed to realise the serious effects resulting from epidemics of measles.

In my report for the quarter ended June, 1915, at the time of the terrible epidemic above referred to, I made the following remarks referring to the epidemic:—

“ It has caused over 1,000 deaths within 9 months, the victims for the most part being healthy children between 1 and 5 years of age; while in addition the health of a far larger number has been very seriously affected. Putting aside the consideration of the trouble and affliction which have fallen on so many homes, and which perhaps many who have not so suffered do not fully realise, the financial loss to the parents, to the county, and to the State is extremely serious. With a decreasing birth-rate and the terrible mortality caused by the war the State cannot afford to lose its young population in this wholesale manner. The county suffers directly by the serious interference with school attendance as the result of the epidemic prevalence of this disease; while the parents whose children die or suffer in health have additional expenses to bear which in these times must materially increase the difficulties of living. I am very much afraid, though, that these facts are not fully realised by many of the sanitary authorities in this county, who are responsible for dealing with preventable disease, nor the further fact that the great majority of the deaths from measles are preventable, for the replies of the district sanitary authorities to your



Committee's recommendation that they should take advantage of the willingness of the Local Government Board to make the first case of measles in each house compulsorily notifiable, with the object of enabling advice and supervision to be given, are not encouraging. Of the 40 district sanitary authorities who have replied to your Committee's recommendation 30 have declined to take action so far as notification is concerned, though a few authorities express their willingness to take other steps for dealing with the disease, while the authorities of 6 sanitary districts do not appear to have come to a definite decision in the matter."

Admittedly, with our present sanitary organisation it is extremely difficult to control the prevalence of measles in our industrial areas, as a patient suffering from the disease is highly infective before the rash appears and an accurate diagnosis can be made, but as I stated in my quarterly report above referred to, it is more a question of the prevention of death and of permanent ill-health than of the prevention of the spread of infection, and I have not the slightest doubt that with compulsory notification of the first cases in a household, a sufficient staff of trained health visitors, which the county will for the most part provide, and with hearty co-operation between the county, and district health and education authorities, this most desirable end can be very largely accomplished. Although, as I have pointed out, the increased attention given to personal hygiene has already borne fruit, I am still convinced that much more can be done to limit the mortality from this disease.

The County Council makes a grant to district nursing associations affiliated to the County Nursing Association in respect of the nursing in their homes of cases of measles by the district nurses.

### **WHOOPIING COUGH.**

Whooping cough was responsible for 194 deaths, or 10 more than in the previous year, the death-rate per 1,000

population being 0.20; for England and Wales the rate was 0.15.

As is the case with measles, many of the deaths from whooping cough are due to complications associated with the disease and are largely preventable by proper care and nursing of the patients. There are, however, the same difficulties in controlling this disease as in the case of measles, and perhaps an additional difficulty in that the disease attacks its victims at an earlier period of life than is the case with measles. This is shown in the following table:—

**Table 17.**

	Percentage of Deaths at certain age periods to total deaths, 1925.							
	Under 3 mths.	3-6 mths.	6-9 mths.	9-12 mths.	Total under 1 year.	1-2 years.	2-5 years.	Total under 5 yrs.
Measles .....	0.01	0.07	0.21	0.50	0.79	1.56	0.92	3.27
Whooping Cough ...	0.17	0.11	0.19	0.15	0.62	0.58	0.28	1.48

As regards particular districts, the largest number of deaths from whooping cough occurred in Hebburn (16) and Spennymoor (15) and in the rural districts of Chester-le-Street (14), Easington (14) and South Shields (13).

### **EPIDEMIC DIARRHŒA UNDER 2 YEARS OF AGE.**

This disease was less fatal than in 1924, 265 deaths being registered as against 304. During the ten years 1916-25 the average annual deaths numbered 349, and there is considerable evidence that the education of the people in health is, as is the case with measles, favourably influencing the mortality.

The following table gives the mortality from epidemic diarrhœa under 2 years of age in succeeding quinquennia;—

Table 18.

			Mean Annual Number of Deaths.	Mean Annual Death-rate per 1,000 Population.
1901-05	...	...	696	0.867
1906-10	...	...	817	0.926
1911-15	...	...	869	0.908
1916-20	...	...	386	0.414
1921-25	...	...	312	0.318

In 1911 there were 1,547 deaths from this disease, but in 1921, the last year in which there was a hot and dry summer comparable with that of 1911, the diarrhoea deaths numbered only 586 in the administrative county.

Improved environmental conditions, better scavenging, and greater care in the feeding of infants, have undoubtedly had a marked effect in reducing the mortality from these diarrhoeal diseases, but so long as midden-privies and ash-closets continue to exist in our industrial districts, deaths from diarrhoea will continue to occur, especially in years when the climatic conditions are favourable.

It is interesting to note that even in the years when epidemic diarrhoea has been extremely prevalent there has been practically no mortality in the sanitary districts situated at a high altitude or in the purely agricultural districts in the county. During 1925 not a single death occurred in the rural districts of Barnard Castle, Darlington, Stockton, or Weardale, or in the urban districts of Leadgate, Stanhope, and Tow Law, nor were any deaths registered in Billingham, Crook, Shildon, and Tanfield.

### INFLUENZA.

The deaths from influenza numbered 292, equal to a death-rate of 0.29 per 1,000 population, as compared with 691 deaths and a mortality-rate of 0.70 in 1924.



The highest mortality was in the borough of Stockton, 58 deaths occurring. The only districts in the county from which there were no deaths registered from influenza were those of Stanhope and Tow Law.

In both 1924 and 1925 the prevalence of influenza was greatest during the first quarter, the mortality in these quarters being at the rate of 1.90 and 0.64 respectively. In both these quarters also the mortality from acute lung diseases was highest.

The following table gives the mortality from influenza and acute respiratory affections (bronchitis, broncho-pneumonia, pneumonia and pleurisy) during the past five years:—

**Table 19.**

Year.	Death-rate per 1,000 Population.	
	Influenza.	Acute Respiratory Diseases.
1921 ... ..	0.23	2.34
1922 ... ..	0.96	2.56
1923 ... ..	0.14	2.36
1924 ... ..	0.70	2.43
1925 ... ..	0.29	2.32

### **BACTERIOLOGICAL EXAMINATIONS.**

The following table gives particulars as to the number of specimens submitted with the results during the past five years:—

Table 20.

	Number of Specimens submitted.					Positive.					Negative.					Inconclusive.				
	1921	1922	1923	1924	1925	1921	1922	1923	1924	1925	1921	1922	1923	1924	1925	1921	1922	1923	1924	1925
Diphtheria .....	816	414	623	559	798	226	76	128	130	139	525	271	470	414	644	65*	67	25	15	15
Enteric Fever .....	79	42	31	51	44	6	4	2	11	5	72	36	27	38	39	1	2	2	2	..
Phthisis .....	1422	1568	1578	1687	1684	322	299	328	407	328	1100	1269	1250	1280	1356	..	..	..	..	..
TOTALS .....	2317	2024	2232	2297	2526	554	379	458	548	472	1697	1576	1747	1732	2039	66	69	27	17	15
Positive Cases (proportion per cent.) ..	23.9	18.7	20.5	23.8	18.7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

\* 10 Specimens were contaminated.

The next table gives the number of bacteriological examinations made in connection with the County Venereal Diseases Department during the last four years.

**Table 21.**

Examination.						1922	1923	1924	1925
Spirochetes	...	...	...	...	...	51	7	9	13
Gonococci	...	...	...	...	...	619	138	449	399
Wassermann	...	...	...	...	...	2846	2433	2116	2069
Other Examinations—									
Comp. Fixation Test	...	...	...	...	...	...	95	102	49
C.S. Fluid (Wassermann)	...	...	...	...	...	16	10	12	11
Do. (General)	...	...	...	...	...	10	6	6	...
Urine for detection of Gonococci	...	...	...	...	...	7	...	22	29

A new bacteriological laboratory complete in every particular was established at the Armstrong College, Newcastle-on-Tyne, in 1923, in place of the laboratory previously utilised at the College of Medicine. The Director is Professor H. J. Hutchens, D.S.O., M.A., D.P.H., and he is assisted by seven skilled bacteriologists, who are members of the medical profession. The county bacteriological work has now been undertaken by the College of Medicine for 25 years, the character of the work being always quite satisfactory, and I have no hesitation in stating that the facilities granted at the College of Medicine have been of the greatest advantage to the County Council, who have been able to get their bacteriological work efficiently performed at a cost very much less than had they provided a separate county bacteriological laboratory. Under the County Council scheme medical practitioners are enabled to send specimens free of cost to the bacteriological laboratory in order to assist them in the diagnosis of cases of diphtheria, enteric fever, and phthisis,



occurring in their practice, and also in respect of venereal diseases, and in addition in special cases similar facilities are given to practitioners in respect of other diseases such as cerebro-spinal fever, anthrax, septic diseases, etc.

### **MALIGNANT DISEASES (CANCER, &c.).**

The number of deaths from malignant diseases increased from 888 in 1924 to 915 in the year under review. In my last annual report I commented on the relatively lower cancer death-rate for the county and for England and Wales, and expressed the view that this was largely due to the fact that there was a relatively larger population to the total population in the County of Durham living at the lower ages.

We are still unenlightened as to the etiology of malignant diseases, though it is perfectly clear that one of the factors productive of cancer is continued irritation under certain conditions. There is every reason to hope, however, as a result of the systematic research work which is being undertaken, backed up as it is by increasing financial support from the general public, that the elucidation of the problem will not be long delayed. In the meantime it is most desirable in the interests of the patient that medical advice should be called in at the earliest possible moment, for in the early stages of the disease the surgeon can effectively deal with it in a large proportion of the cases, with the probability of non-recurrence.

The following table gives comparative statistics in respect of cancer mortality for the administrative county and England and Wales:—

**Table 22.**

YEAR.	DURHAM COUNTY.		ENGLAND & WALES.	
	Deaths	Death-rate	Deaths.	Death-rate
1916	676	0·73	40,630	1·16
1917	682	0·73	41,158	1·21
1918	665	0·72	41,227	1·22
1919	734	0·79	42,114	1·14
1920	752	0·80	43,687	1·16
1921	773	0·81	46,022	1·21
1922	837	0·86	46,903	1·23
1923	895	0·92	48,668	1·41
1924	888	0·89	50,389	1·30
1925	915	0·92	51,939	1·33

## MATERNITY AND CHILD WELFARE.

In making a general survey of maternity and child welfare during the last five years one should bear in mind the fact that the attitude to the work has changed. A wider and a more comprehensive view has been adopted, and from aiming mainly at reducing deaths under one year, the effort has gradually changed into one of maintaining physical and mental fitness in the family. Practical consideration is being given to the importance of providing a sane mind in a sane body. It is now also recognised that a healthy mother is the necessary forerunner to a healthy child, and the father is now also receiving a share of the attention required for the perfect home.

The necessity of providing skilled and experienced teachers of maternity and child welfare is also having attention, and improved and more concentrated teaching on the subject is recommended for the medical student as well as more specialised experience for the welfare medical officer and higher qualifications for the health visitor. More than ever is maternity and child welfare being treated as one of the greatest social movements, and what is of particular importance is that the general public has become interested. This is shown by the large number of invitations sent to officials dealing with maternity and child welfare to lecture in their own and other districts to women's institutes, girl guides, social clubs, nursing associations, etc.

A valuable report on maternal mortality prepared by Dame Janet Campbell, of the Ministry of Health, has undoubtedly been a great help in the stimulation of ante-natal work and the better practise of midwifery throughout the country. Certain it is that in this county we are each year increasingly recognising the importance of maternity and child welfare and are prepared to profit by any advice given by skilled persons on the subject.

The establishment of welfare centres, school clinics, maternity homes and convalescent homes, the development of

home visiting by health visitors and nurses, and the teaching of hygiene and mothercraft in our schools, have all had an influence directly or indirectly on the mothers of to-day, and in this county, at any rate, the demand for advice by mothers in respect of their own health and that of their children is greater than can at present be satisfied owing to the insufficiency of centres and staff.

## CENTRES.

Great as has been the development of maternity and infant welfare work in this administrative county, greater progress would undoubtedly have been made but for the unsettled industrial situation and unemployment during the past five years. During recent years the development of the county welfare scheme, so far as the provision of centres is concerned, has been the result of the interest and enthusiasm of private individuals and voluntary organisations. There has been a very large increase in the number of voluntary welfare centres, and as far as possible the County Council has assisted the movement by providing the necessary staff and assisting financially. At the end of 1920 there were in existence in the administrative county 16 welfare centres provided by the County Council and 3 by voluntary bodies, while at the end of 1925 there were 21 county centres and 38 voluntary centres; no new county centres but 6 new voluntary centres having been opened during 1925. At all these centres a welfare medical officer attends. As showing the interest taken in the subject it may be mentioned that largely as a result of the efforts of Dr. Mabel Brodie, the Senior Welfare Medical Officer, a fund of £1,000 was raised during the latter part of 1922 and the early part of 1923 for the purpose of starting new voluntary welfare centres, the money being obtained partly by contributions from colliery companies, partly by donations, and partly by profits derived from entertainments. All the voluntary centres have done very successful work, and great praise is due to the members of the voluntary committees and others for their sustained interest in the work. The County Council now contribute



£20 per annum towards the expenses of each approved voluntary welfare centre requiring such assistance.

It must be admitted that in some of the centres the work is carried on under very difficult conditions owing to the comparative unsuitability or inadequacy of the available accommodation, and for the best work to be obtained it is most important that a welfare centre should be conveniently situated and provide adequate accommodation for the mothers, children, officers, and other workers. The difficulty of course is the expense, especially where money is limited, as must necessarily be the case where the income is largely dependent on voluntary contributions, and wherever possible it is undoubtedly desirable that the authority responsible for maternity and infant welfare work should themselves provide adequate buildings and appliances. So far as this county is concerned, the County Council has provided three really good centres at Birtley, Consett, and Houghton-le-Spring, in premises which they have purchased, and they have also provided wooden buildings at Horden, Shotton, and Seaham Harbour, which, though at the time of their construction they were considered adequate for the purpose, are now, owing to the large increase in attendance, being found too small for the purpose. All the other county centres and voluntary centres are in rented buildings, such as church halls, schools, etc. At Chester-le-Street the urban district council have very kindly permitted the use of part of their offices for a centre.

The following tables show (1) the attendances during 1925 at welfare centres both of children under 5 and expectant mothers, and (2) the attendances at welfare centres during the past 5 years.

Table 23.

Attendances at the Welfare Centres during 1925.

NAME OF CENTRE.	Children under 5.			Expectant Mothers.		
	No. on books.	Attendances.	Consultations.	No. on books.	Attendances.	Consultations.
Annfield Plain .....	530	3674	2986	69	165	155
Barnard Castle .....	59	486	414	...	...	...
Birtley.....	972	3935	3493	136	550	533
Cockton Hill, Bishop Auckland	698	2519	1609	...	...	...
Town Head, Bishop Auckland	181	785	599	6	11	10
Blackhill .....	369	1371	910	6	25	23
Blaydon .....	635	3149	2809	86	253	253
Boldon.....	188	1205	821	14	28	24
Burnhope.....	95	425	307	...	...	...
Burnopfield .....	188	985	844	12	25	24
Chester-le-Street.....	457	1486	1121	9	13	13
Chilton .....	227	1329	704	7	7	7
Chopwell .....	305	1168	845	15	59	54
Consett .....	690	3994	3180	52	148	138
Coxhoe.....	320	1366	1072	9	16	15
Craghead.....	132	746	717	20	34	34
Crook .....	573	2434	1172	54	91	90
Durham .....	867	3724	3066	103	208	198
Easington .....	226	1448	1297	17	43	40
Esh Winning.....	270	1442	1256	32	101	99
Felling.....	508	2728	2594	24	73	71
Ferryhill .....	403	1512	1105	48	96	95
Grange Villa .....	72	157	130	7	17	16
Haverton Hill .....	208	1682	629	8	36	8
Hetton-le-Hole .....	385	1198	671	18	24	23
Horden .....	384	1955	1868	21	48	48
Houghton-le-Spring .....	1348	5287	4449	128	338	325
Langley Park .....	237	1184	939	8	24	22
Middleton-St-George .....	81	687	288	...	...	...
Rowlands Gill.....	225	1189	1116	16	56	56
Ryhope .....	254	1735	1565	4	11	11
Sacriston .....	385	1571	1376	41	112	109
Seaham Harbour.....	699	3037	2878	41	96	94
Sildon .....	611	3409	2252	37	73	71
Shotley Bridge .....	223	1672	385	3	3	3
Shotton .....	331	1262	1233	19	33	33
Southwick .....	472	3000	895	37	42	37
Spennymoor .....	603	2862	2597	65	154	150
Stanhope.....	15	179	152	1	1	1
Tow Law.....	195	779	697	8	26	26
Trimdon.....	319	1114	401	8	17	14
Washington .....	585	2417	1393	40	102	93
West Stanley.....	633	3389	2865	125	293	293
Wheatley Hill.....	197	757	689	5	6	5
Whickham .....	812	2278	1692	12	42	39
Willington .....	194	742	270	12	19	8
Wingate .....	229	713	500	10	9	8
Witton Park .....	241	930	746	12	20	19
Wolsingham.....	61	425	285	...	...	...
Totals.....	18991	87521	65882	1405	3548	3388



Table 24.

Table showing Attendances at Welfare Centres during the past Five Years.

Year.	No. of Welfare Centres in County.	Children under 5.			Expectant Mothers.		
		No. on Books.	Attendances.	Consultations.	No. on Books.	Attendances.	Consultations.
1921	24	9,237	40,502	26,949	301	1,214	1,060
1922	28	10,566	45,823	31,547	499	1,391	1,228
1923	36	12,392	53,504	34,063	509	1,373	1,139
1924	43	15,892	70,172	48,186	817	2,083	1,866
1925	49	18,991	87,521	65,882	1,405	3,548	3,388

I have received from all the medical officers of the welfare centres valuable statistical information as to the work at each centre, which includes much general information, and particulars as to expectant mothers, children under one and under five, and also regarding the health of the mothers and the health and occupation of fathers. The statistics supplied will be very valuable for reference but unfortunately they are too voluminous to be incorporated in this annual report.

#### WELFARE MEDICAL STAFF.

The welfare medical staff of the County Council has been considerably increased during the last five years. At the end of 1920 the staff consisted of a senior and three assistant medical officers, in 1923 an additional whole-time assistant medical officer was appointed, and in 1924 two more whole-time officers were added to the staff, and at the end of 1925 there were seven whole-time medical officers of the County Council engaged in welfare work. In addition several centres are staffed by part-time medical officers. Dr. MacLeod, the medical officer of health of the Hetton urban district, attends the Hetton-le-Hole centre, Dr. McKellar that at Chester-le-Street, Dr. Welford at Barnard Castle, Dr. Tindall at Middle-



ton St. George, Dr. Mary Mather at Haverton Hill, Dr. Mary Raw at Shotley Bridge and Blackhill, Dr. May Raw at Washington, Dr. Isabel Lane at Boldon Colliery, Dr. Forster at Southwick, and Dr. Christine Thomson at Bishop Auckland and Wingate. For some time Dr. Grant, the medical officer of health of the Easington rural district, very kindly acted as medical officer of the Wingate centre in his district, and Dr. Penfold, the medical officer of health of the Auckland rural district, attended at the Cockton Hill centre, Bishop Auckland. In some instances, at the start of a centre, part-time medical officers have given their services entirely voluntarily. The part-time medical officers attending the Bishop Auckland, Chester-le-Street, Wingate, Washington, and Haverton Hill centres, are paid by the County Council, the voluntary committees being responsible for the payment of the other part-time officers.

During the annual holiday of the county welfare medical officers a locum is provided, and it is a matter of consideration whether it would not be more advantageous for the Council to appoint an additional welfare medical officer who would take holiday and sickness duty, and at other times be available for giving lectures and talks to workers and mothers at the centres throughout the county. Under present circumstances our medical officers are so fully occupied with the routine work of the centre that they can rarely find time to give general lectures or talks at the centres or to voluntary organisations interested in welfare work.

With the object of keeping the county welfare medical staff in close touch with the various developments of welfare work, the County Council agreed to give one month's post-graduate leave for each three years of service, and several of the officers have been glad to take advantage of this arrangement. Similar leave has from time to time been granted also to members of the health visitors staff and the County Midwives Inspector.

Each of the assistant welfare medical officers is now provided with a travelling clerk to assist them at the centres.

During 1925 the Senior Welfare Medical Officer gave two courses of lectures to health visitors for their diploma course, and she has also given lectures on maternity and child welfare to women's institutes in the county, to midwives, and to many other voluntary organisations interested in social work. Dr. McIntosh, one of the assistant medical officers, has also given lectures at the County Maternity Home, Bishop Auckland, to the pupil midwives.

The Senior Welfare Medical Officer has an office in Durham and is assisted by one whole-time clerk, but the work has so increased that the question of additional clerical assistance in that office is becoming urgent.

#### EDUCATIONAL ARRANGEMENTS.

In addition to the lectures and talks given by the county staff assistance has been obtained from outside sources. In 1922 two lectures were given at Shildon and Spennymoor by Miss Florence Petty, her fee being paid by the voluntary committees. In the following year Miss Petty visited nineteen centres giving demonstrations and lectures in the preparation and cooking of food, etc., and during the same year Dr. Eleanor Stone, on behalf of the British Red Cross Society, gave a series of health lectures in several selected areas, the County Council contributing to the expenses of the course. In 1925 Miss Petty was again in the county for a whole month and her lectures were much appreciated.

In connection with Health Week the County Council has for several years organised a county conference, which has usually been held in the Town Hall in the City of Durham.

The conference included a lecture by some well-known authority on preventive medicine, addresses having been given, among others, by Sir George Newman, Sir Arthur Newsholme, Dr. Tredgold, Dr. Saleeby, Dr. Mellanby, and Dr. Daw. The subjects dealt with during the last five years have included sunlight treatment, rickets, alcohol and its relation to infant mortality, ante-natal work, general health progress, mental disease, and the care of cripples. On every occasion there has been splendid attendances at the conference, the large town hall being packed. Associated with the conference there has also been a welfare exhibition and a cinema entertainment dealing with matters of public health interest.

During both Health and Baby Weeks a number of the voluntary committees have organised celebrations, and on several occasions have been assisted by members of the county health staff, who have given addresses. The Spennymoor voluntary committee has been particularly enthusiastic with regard to these celebrations, and in 1925 the Houghton-le-Spring voluntary committee and the district council devoted several days to a Health Week programme, which was highly successful.

During the latter part of 1925, by the courtesy of the Newcastle Electrical Supply Company, a number of cookery lectures and demonstrations were given by Miss Anna Holm, the official demonstrator of the company. She proved herself a most excellent demonstrator and many demands have been made on her since she gave the first lecture. The company provided everything necessary, which was of the greatest help to the centres.

#### ANTE-NATAL WORK.

There has been a gradual development of this important branch of welfare work. In 1920 no ante-natal sessions were held at any centres, the mothers being encouraged to come to



the ordinary infants' consultations. The first ante-natal clinic was opened at Spennymoor in 1923, the voluntary committee paying the extra cost involved by the extra session, and although only fortnightly sessions were possible 76 mothers attended during the year, while the practising midwives brought their patients for advice and helped in the work of the centre. A meeting of the medical practitioners in the area was attended by the Senior Welfare Medical Officer, who explained the work of the ante-natal clinic, and from time to time patients have been referred to the clinic by the doctors who do most of the midwifery in that area. During the following year four other ante-natal clinics were opened at Ferryhill, Birtley, West Stanley, and Durham. The Birtley and Stanley clinics were well attended, but as it was only possible to arrange fortnightly sessions the number of consultations was necessarily limited.

The following is a table showing the ante-natal sessions in operation during 1925, and it will be seen that the attendance varied considerably at the different centres, the attendance undoubtedly being dependent to some extent on whether or not the staff are particularly interested in ante-natal work and whether the local doctors and midwives are co-operating. Every effort should be made to render these clinics attractive, and it is certainly desirable that there should be at all of them maternity bags, model clothes, a literature stall, sewing classes, and regular talks and demonstrations, with a rest room.

**Table 25.**

**Table showing number of Ante-natal Sessions held at Welfare Centres during the past Five Years.**

1921.	1922.	1923.	1924.	1925.
Nil.	Nil.	1	4	13

### Districts where Ante-natal Centres existed in 1925.

Name of District.	Fortnightly or Weekly.	Name of Medical Officer.
Annfield Plain .....	Fortnightly.....	Dr. Williamson.
Birtley.....	Weekly .....	Dr. Howie.
Blaydon .....	Fortnightly .....	Dr. Howie.
Consett .....	Fortnightly.....	Dr. Williamson.
Crook .....	Fortnightly.....	Dr. McIntosh.
Durham .....	Weekly .....	Dr. Henderson.
Felling.....	Weekly .....	Dr. Reid.
Ferryhill.....	Fortnightly.....	Dr. Henderson.
Shildon .....	Fortnightly.....	Dr. McIntosh.
Spennymoor .....	Fortnightly.....	Dr. Lilley.
Stanley .....	Fortnightly.....	Dr. Williamson.
County Maternity Home, Bishop Auckland .....	Fortnightly.....	Dr. McIntosh.
Richard Murray Hospital, Blackhill.....	Fortnightly.....	Dr. Breakey.

The opening of the County Maternity Homes at Bishop Auckland and Blackhill have been of the greatest value and assistance in connection with ante-natal work, and more accommodation will be needed in the near future. Many mothers have found difficulty in paying for the waiting period in the maternity home prior to the confinement, although the fees for this waiting period have been reduced. Many mothers who would gladly have gone to the maternity homes have had to stay at home because they could not arrange for the care of their families during their absence, and I am afraid also that some medical practitioners have not taken advantage of the provision made at these homes. This fact appears evident from the maternal mortality enquiries which have been made in the county; for it is more than possible that the lives of several patients suffering from such conditions as threatened eclampsia and placenta prævia might have been saved had they received early institutional treatment.

The welfare medical staff have frequently called attention to the desirability of the appointment of a gynæcological consultant for ante-natal cases presenting special difficulty.



Only a few mothers can afford the railway fare to Newcastle-on-Tyne where they can be seen by a consultant, and it would be much more satisfactory if a consultant could attend in certain areas of the county at stated times or if one definite officer could be appointed whose services could be called upon where necessary.

The following table shows the attendances of ante-natal cases at welfare centres during the past four years.

Table 26.

	1922.			1923.			1924.			1925.		
	No. on Books.	Attendances.	Consultations.	No. on Books.	Attendances.	Consultations.	No. on Books.	Attendances.	Consultations.	No. on Books.	Attendances.	Consultations.
Annfield Plain .....	26	61	46	3	29	22	26	102	72	* 69	165	155
Barnard Castle .....	2	4	1	2	25	17	8	9	3	..	..	..
Birtley .....	86	307	263	103	294	235	150	445	403	* 136	550	533
Bishop Auckland— Cockton Hill .....	..	..	..	3	11	11	..	..	..	..	..	..
Bishop Auckland— Town Head .....	3	3	2	12	36	24	3	4	4	6	11	10
Blackhill .....	8	18	17	13	26	22	15	38	32	6	25	23
Blaydon .....	20	51	48	8	23	19	17	55	54	* 86	253	253
Boldon Colliery .....	..	..	..	..	..	..	1	1	1	14	28	24
Burnhope .....	..	..	..	..	..	..	..	..	..	..	..	..
Burnopfield .....	6	10	9	7	18	3	14	32	31	12	25	24
Chester-le-Street .....	17	44	34	18	32	31	10	23	22	9	13	13
Chilton .....	..	..	..	..	..	..	..	..	..	7	7	7
Chopwell .....	..	..	..	3	6	6	2	15	12	15	59	54
Consett .....	16	31	27	8	19	19	20	38	38	* 52	148	138
Coxhoe .....	..	..	..	4	5	5	1	15	15	9	16	15
Craghead .....	..	..	..	1	10	9	1	17	6	20	34	34
Crook .....	11	20	20	13	29	29	18	26	21	* 54	91	90
Durham .....	30	82	74	26	57	49	66	140	132	* 103	208	198
Easington .....	..	..	..	..	..	..	10	33	81	17	43	40
Esh Winning .....	..	..	..	..	..	..	10	19	14	32	101	99
Felling .....	41	155	152	33	104	101	25	81	77	* 24	73	71
Ferryhill .....	36	116	106	7	29	29	32	40	33	* 48	96	95
Grange Villa .....	..	..	..	..	..	..	..	..	..	7	17	16
Haverton Hill .....	9	16	16	14	87	35	11	78	30	8	36	8
Hetton .....	..	..	..	3	3	3	7	7	6	18	24	23
Horden .....	12	37	26	8	21	31	11	29	28	21	48	48
Houghton-le-Spring ..	23	48	45	33	72	68	53	137	134	128	338	325
Langley Park .....	..	..	..	..	..	..	..	..	..	8	24	22
Middleton-St.-George ..	..	..	..	..	..	..	3	5	5	..	..	..
Rowlands Gill .....	..	..	..	..	..	..	4	7	7	16	56	56
Ryhope .....	4	6	4	3	3	3	2	2	1	4	11	11
Sacrison .....	..	..	..	1	1	..	9	41	34	41	112	109
Seaham Harbour .....	14	27	25	11	24	24	25	53	50	41	96	94
Shildon .....	13	30	20	14	21	21	18	53	52	* 37	73	71
Shotley Bridge .....	3	19	10	2	13	2	1	6	3	3	3	3
Shotton .....	5	9	9	10	21	21	15	38	37	19	33	33
Southwick .....	..	..	..	4	4	2	17	21	8	37	42	37
Spennymoor .....	67	174	160	76	201	178	67	166	163	* 65	154	150
Stanhope .....	..	..	..	..	..	..	..	..	..	1	1	1
Trimdon .....	..	..	..	13	17	11	19	27	27	8	17	14
Washington .....	2	2	1	10	20	9	11	31	27	40	102	93
West Stanley .....	38	103	102	42	103	96	82	184	173	* 125	293	293
Tow Law .....	..	..	..	..	..	..	..	..	..	8	26	26
Wheatley Hill .....	..	..	..	..	..	..	20	29	29	5	6	5
Whickham .....	..	..	..	..	..	..	10	19	19	12	42	38
Willington .....	7	18	11	4	8	8	3	17	17	12	19	8
Wingate .....	..	..	..	..	..	..	..	..	..	10	9	8
Witton Park .....	..	..	..	..	..	..	..	..	..	12	20	19
Wolsingham .....	..	..	..	1	6	2	..	..	..	..	..	..
	499	1391	1228	509	1373	1139	817	2083	1866	1405	3548	3388

During 1921—Number of Expectant Mothers on Books ..... 301

                  "          "          Attendances ..... 1214

                  "          "          Consultations ..... 1060

\* These Centres had separate Ante-natal Clinics during 1925.



No meals are provided by the County Council for expectant mothers, but those who are necessitous may obtain dried milk during the last six weeks of pregnancy, and the welfare medical staff think this has been very beneficial where the fathers were out-of-work and food was not very plentiful, and in many cases mothers have been better able to nurse their babies as a result of this feeding during pregnancy.

#### DENTAL TREATMENT.

The importance of the provision of dental treatment for nursing and expectant mothers was dealt with at some length in my last annual report. Although no systematic dental treatment is at present being provided in the administrative county, some progress has been made. A dental clinic was established in 1924 by the voluntary committee at the Houghton-le-Spring welfare centre, and patients were also treated at this clinic from other centres on the payment by the committee of the centre of a capitation fee of 1/-, the patient herself paying for treatment where possible. Other voluntary centres have followed the example of Houghton-le-Spring with the result that dental sessions have been opened at the centres at Durham, Horden, and Shildon, and towards the end of 1925, Consett, Shotley Bridge, and Blackhill centres opened a joint clinic with monthly sessions, the County Education Committee kindly giving permission for the use of their dental chair and room at the Consett school clinic. A dentist was also appointed in 1923 to visit the E. F. Peile County Convalescent Home one morning per week, and in this way the teeth of many mothers have received the necessary attention.

Towards the end of 1925 a special sub-committee, appointed to consider the question, recommended the appointment of a full-time dentist, to be provided with a car and portable equipment, who would visit welfare centres in the county and attend to the teeth of nursing and expectant mothers. This recommendation has since been confirmed by the County Council and approved by the Minister of Health,

Dental caries, accompanied as it often is by oral sepsis, is a very serious danger to mothers, and particularly expectant mothers, and it has been suggested on more than one occasion that oral sepsis has been a contributory factor in the death of a mother from puerperal sepsis. According to reports of the welfare medical staff, at least 70% of the mothers attending the centres in this county require some form of dental treatment.

#### ENQUIRY INTO THE HEALTH OF THE PRE-SCHOOL CHILD.

During the latter part of 1924, the Minister of Health formed a committee to enquire into the health of the pre-school child, the proposal being that this enquiry should be carried out through the welfare centres. Durham administrative county was one of the areas selected for the enquiry and special forms were issued by the Ministry of Health, each medical officer being asked in the first place to select one hundred children, approximately aged two years, and to keep these under regular supervision at intervals of not longer than three months' duration for a period of three years. Seeing that each medical officer on the county welfare staff has five or more welfare centres in varying areas the children should be fairly representative of the pre-school children of the county who attend welfare centres, but any deductions from results obtained will not necessarily apply to other children who have not attended welfare centres. The Senior Welfare Medical Officer welcomes this enquiry as there has been practically no time for research work at the centres. Enquiry has already helped to draw attention to the fact that the pre-school child needs almost the same attention and supervision as the baby under one year. Dr. Brodie also points out that although one hundred children have been selected in each area it will not be possible, owing to removal to other districts, deaths, and non-attendances at centres, for the final report to deal with the full complement of one hundred.

#### PROVISION FOR UNMARRIED MOTHERS.

The St. Monnica's Home, Bishop Auckland, is the only

institution in the administrative county in which provision is made for unmarried mothers, and to this the County Council contributes a grant of £250 per annum. The House Committee of the voluntary organisation responsible for the administration of the Home includes a member of the County Health Committee and one of the county welfare medical staff, who visits the Home regularly. Improvements have recently been made in the Home, and on this account it was necessary for a time to close the Home during 1925. The staff has also been increased and improved. Until recently, children over one year of age were accommodated in the Home, but now only expectant and nursing mothers and their babies are received. All the midwifery work at the Home is undertaken by the staff of the County Maternity Home near by, no fee being charged for the services of the midwife, though a payment of 5/- is made in respect of dressings for each case.

Unmarried mothers are also received into the county maternity homes for their confinements, and a certain number of unmarried women and their babies have been sent to the Hostel in Osborne Road, Newcastle-on-Tyne, the County Council contributing towards the cost.

A considerable number of unmarried mothers attend the county welfare centres, and any suffering from venereal disease are referred to the venereal diseases clinics. In a few cases unmarried mothers and their babies have been sent for institutional treatment to the Hope Hospital, Leeds, at the expense of the County Council.

#### ARRANGEMENTS FOR THE SUPPLY OF FOOD AND MILK AT CENTRES.

Considerable quantities of dried milk are sold at cost prices to mothers attending centres with their babies in approved cases, and owing to serious unemployment the quantity of milk supplied free or at a reduced cost very considerably increased during 1925. This involves not only



largely increased expenditure by the County Council in respect of maternity and child welfare but it also causes a large increase in the number of mothers attending the centres for the purpose of obtaining the milk, and in many cases considerable interference with the routine work, to the detriment of mothers and infants who specially need attention and advice in respect to their health.

No particular brand of dried milk is supplied, and milk free or at reduced prices is only given on the recommendation of the doctor. At most centres voluntary workers have made themselves responsible for the sale of dried milk, and the sales are now recorded on special forms. The voluntary committees are allowed to charge 1d. per pound on all milk supplied at the centres to cover carriage, overhead charges, etc. This income to the voluntary committee has been found extremely useful, and has on very many occasions been utilised to assist the development of maternity and child welfare either in the area of the voluntary committee or in other areas where assistance is required. Directions are given in each case by the welfare medical officers as to the preparation of dried milk, and at the request of the welfare medical officers the firms supplying the dried milk were directed to remove the usual directions attached to the packages consigned to the centres because it was found that mothers very frequently followed the directions on the packages instead of those given by the welfare medical officers.

The following table gives the actual gross expenditure on milk supplied free, or at reduced cost, in the county maternity and child welfare area during the last five financial years ending on the 31st March, 1926:—

**Table 27.**

	£	s.	d.
Year ended 31st March, 1922.....	13,110	13	11
Do. 1923.....	5,333	10	9
Do. 1924.....	2,575	18	5
Do. 1925.....	4,298	2	11
Do. 1926.....	11,072	12	8

The welfare medical officers are very definite in stating that the results from dried milk, so far as the health of mothers and children is concerned, has been very satisfactory, and undoubtedly such milk has many advantages over ordinary wet milk, especially as regards freedom from contamination. In most cases cod liver oil or emulsion, sugar and orange juice are prescribed in addition to the milk itself, the mother being directed as to the exact quantities to be used.

### ORTHOPÆDIC TREATMENT.

Up to the present there is no county scheme for dealing with crippled children whether below or of school age, but all the same a certain amount of valuable work has been carried out. Orthopædics was the subject of the address given at the county conference at Durham in October, 1925, by Dr. Daw, an eminent orthopædic surgeon, and there is no doubt whatever that his remarks did a great deal to attract public attention in the county to this important matter. As far back as 1921 the County Council decided to provide treatment at Shamrock House, Durham, which is an excellent institution, maintained by voluntary funds, for providing electrical treatment and massage in respect of suitable cases of infantile paralysis and crippling due to rickets among babies attending the welfare centres, but unfortunately the Minister of Health did not sanction the arrangement. Later on, the Durham welfare centre decided to form a branch of the Invalid Children's Aid Association, and as a result a number of cases have received attention at Shamrock House and at the Orthopædic Department of the Royal Infirmary, Newcastle-on-Tyne, any cost involved being defrayed out of voluntary funds. A small number of severe cases of rickets have also been treated at the E. F. Peile County Convalescent Home, but where operative treatment was needed they had to be removed to the Children's Hospital, Newcastle-on-Tyne. A large number of cases of surgical tuberculosis among children, both of and below school age, also received institutional treatment either at the Stannington Children's Sanatorium or at general



hospitals at the expense of the county, and in June, 1925, 107 such children were receiving treatment in institutions.

During 1925 the County Education Committee considered a report on an orthopædic scheme prepared by the Deputy School Medical Officer, after consultation with the Director of Education and myself, and the Committee approved the proposals and have submitted them to the Board of Education for their consideration. The County Education Committee were, however, satisfied that any county orthopædic scheme should make provision for the care of children under school age, during which periods a large proportion of the crippling defects arise, and they recommended the County Health Committee to co-operate in the matter. The Health Committee have since agreed to the appointment of a joint sub-committee, consisting of an equal number of members of the Education and Health committees, to go further into the matter, especially as regards finance, but it is unfortunately probable that the present economic conditions prevailing in the county will delay the carrying out of a complete county orthopædic scheme. In the scheme submitted to the Education Committee it is estimated that a capital expenditure of approximately £14,000 will be necessary for the maintenance charges in respect of an orthopædic hospital of 80 beds, and the after-care costs. It is not easy to estimate the actual cost per bed of constructing the hospital, this depending a great deal on the cost of site, materials used in construction, and as to whether an administrative block would be necessary. A suggestion has been made that inexpensive buildings for the treatment of orthopædic cases might be erected on the site of the Earl's House School, which is to be used to accommodate children suffering from pulmonary tuberculosis, and if that were done the cost per bed would be very materially reduced. No doubt the Earl's House site, situated as it is in the centre of the county and at a good elevation, is a most desirable one for an orthopædic hospital, but the suggestion has not yet received any definite consideration.



### E. F. PEILE COUNTY CONVALESCENT HOME.

This institution, which was presented to the County Council by Mrs. and the Misses Peile, has been utilised since July, 1922, and has done very excellent work. The accommodation in the Home at present provides for 15 children between the ages of 1 and 5 years and for 6 nursing mothers with their babies. If possible, it is desirable that the Home should be extended, as the demands for admission are very large, and there are frequently over one hundred children on the waiting list. There is at present no resident medical officer at the Home, but Dr. Mabel Brodie, the Senior Welfare Medical Officer, is the visiting medical officer, and the medical officer in residence at the Richard Murray Hospital, which is near to the Home, attends when his services are required. Dr. Glen Davison, of Newcastle-on-Tyne, is the consulting physician, and the services of a dentist are available when required. Pupils are received into the Home for nursery training.

The following report for 1925 has been received from Dr. Glen Davison, the Consulting Physician:—

“I have the honour to submit my Annual Report upon the E. F. Peile Convalescent Home, Shotley Bridge, to which I am attached in my capacity of Consulting Physician.

The subjoined report covers the time from 1st January to the 31st December, 1925.

During the period, 72 children over 12 months of age were admitted. During the time in residence 10 of these children developed pyrexia from various causes. One child, and one child only, developed mumps. One child was operated on for tonsils and adenoids with marked benefit. Five children were sent to the Richard Murray Hospital for X-ray plates. Eleven children over 12 months of age on admission to the Home were unable to walk but on discharge all were walking freely. One of these children was 4 years of age. The incidence of rickets among the children admitted to the

Home is not less than 95%, if the condition be regarded either as active on admission or as giving clinical evidence of its former activity. One child with congenital dislocation of hip and one child with cleft palate were transferred to the Fleming Memorial Children's Hospital for necessary treatment.

The nutritional details concerning 55 children under 12 months of age during the past 12 months are as follows:—

All were under average weight for their age. The degree of nutritional disturbance varied from 50% below expected age weight to 12% below expected age weight. The great majority of the children were from 25% to 35% under the age weight average. All these children on discharge, except two, had gained substantially in health and vitality, and all had put on weight. The most outstanding case was that of a child who during his stay of 55 days gained 5 lbs. 10 ozs. It is a pathetic comment upon the social economic conditions obtaining in the homes from which these small children are gathered (so reduced and enfeebled are the majority on admission) that, even when discharged from the home into parental care, only one child out of the 55 had reached average weight for age.

The average duration of residence in the Home for the toddlers was 51 days. The longest stay was 161 days and the shortest stay of these cases analysed was 9 days.

From the 1st January to the 31st December, 1925, there were admitted to the Home 85 nursing mothers, five of whom had twins. One of the mothers was discharged within 24 hours as unsuitable for the Home owing to her mental condition. Another was admitted from the Richard Murray Hospital, having given birth to a premature baby. Unfortunately, the baby did not respond to treatment and died on the sixth day after admission. The remaining 84 mothers may be classified on admission as follows:—

	No.	Percentage.
Breast feeding exclusively.....	28	33.33
Breast & supplemental feeding	46	54.76
Bottle feeding entirely.....	10	11.91
	<u>84</u>	<u>100.0</u>

When discharged after residence in the Home, the classification became :—

	No.	Percentage.
Breast feeding exclusively.....	40	47.61
Breast & supplemental feeding	37	44.04
Bottle feeding entirely.....	7	8.35
	<u>84</u>	<u>100.0</u>

The condition of the 89 babies when discharged from the Home was as follows:—

Shewing.	No.	Percentage.
Gain of weight .....	73	82.02
Loss of weight .....	7	7.86
No improvement .....	9	10.12
	<u>89</u>	<u>100.0</u>

It is hoped that these types of babies, who either lose in weight or fail to gain weight, may be transferred completely or almost completely into the class who automatically gain in weight.

At present no facilities exist in the Home for investigating on research lines the problem of the mal-nourished child. We are compelled to content ourselves with obtaining a definite improvement in the condition both of babies and of toddlers.

Permission is requested to point out the need in the Home of providing a satisfactory room for storage and preparation of milk feed, suitable to the individual babies.

When at length the installation of electric lighting into the Home enables us to have the use of an ultra-



violet ray lamp we may with confidence anticipate improved statistical results on the condition of the children and babies discharged.

Attention is drawn to the fact that it would be an incalculable improvement to the use of the Home if the toddlers' day nursery were transferred to the present 'garden room.' At the same time, or later, a sun balcony attached to this aspect of the house would be a great boon to the children. Finally, I would stress the importance of giving the student probationers a definite course of lectures on the science and art of child welfare by members of the medical and nursing staff."

#### MATERNAL MORTALITY.

During the last three years the majority of maternal deaths have been made the subject of special enquiry by the welfare medical officers. Valuable information has thus been obtained, and, moreover, the enquiries have enabled the county officers to become better acquainted with the medical practitioners in their areas and realise their difficulties. Undoubtedly the importance of ante-natal treatment has received more attention by medical practitioners in general, and in increasing numbers they are taking advantage of the ante-natal centres which have been established. It is a fact, however, that relatively few of the mothers who died during the past three years had received any special ante-natal treatment. In this respect the mothers are very often to blame, as they do not go to their doctor or midwife in time to enable them to receive adequate ante-natal treatment. It is not easy at times to get definite facts concerning a maternal death, owing to the fact that the death has usually occurred some weeks before the enquiry can be made.

The following table gives some interesting particulars in respect of the maternal deaths enquired into, and it will be seen that there has practically been no reduction from deaths from sepsis, and on the other hand there has been an increase of deaths during 1925 from eclampsia, hæmorrhage, and collapse due to heart failure.

	1923	1924	1925
Total No. of Maternal Deaths ... ..	121	143	135
" " " " enquired into ... ..	95	110	100
<i>Analysis of Diagnosis.</i>			
(Abortions considered separately.)			
<b>PUERPERAL SEPSIS.</b>			
Generalised ... ..	21	23	22
" (with obstructed labour) ... ..	...	...	1
Pelvic ... ..	3	2	4
Phlegmasia Alba Dolens ... ..	2	...	2
<b>TOXÆMIAS OF PREGNANCY.</b>			
Eclampsia ... ..	13	9	12
" with P.P.H. ... ..	...	...	1
Chorea Gravidarum ... ..	...	1	..
Nephritis of Pregnancy ... ..	...	...	1
" with Rickety Pelvis ... ..	...	...	1
<b>TOXIC VOMITTING</b> ... ..	1	...	1
<b>HÆMORRHAGES.</b>			
Ante-partum (including Placenta Prævia)... ..	8	8	9
Post-partum ... ..	7	8	6
<b>EMBOLISM</b> ... ..	2	3	7
<b>COLLAPSE</b> (heart failure) ... ..	1	6	6
<b>PUERPERAL INSANITY</b> ... ..	1	1	...
<b>DYSTOCTA</b> (including contracted pelvis) ... ..	4	4	4
<b>ACUTE DISEASE.</b>			
Pneumonia ... ..	4	8	6
" with Influenza ... ..	2	2	2
" " Meningitis ... ..	1	...	...
" " Nephritis ... ..	...	1	...
" " Pyelitis ... ..	...	1	...
" " Tuberculosis ... ..	...	1	...
Pleurisy ... ..	2	...	...
Scarlet Fever ... ..	1	2	1
Influenza ... ..	...	7	1
" with Bronchitis ... ..	...	...	1
" " Nephritis ... ..	...	1	...
<b>CHRONIC DISEASE.</b>			
Nephritis ... ..	2	5	2
Pleurisy (?Tubercular) and Bronchitis ... ..	1	...	...
Bronchitis ... ..	1	...	...
Valvular Heart Disease ... ..	7	4	2
" " " with Bright's Disease ... ..	2	...	...
" " " " Ante-partum hæm.. ... ..	1	...	...
Goitre (1, Exophthalmic) ... ..	2	...	...
Pernicious Anæmia ... ..	1	2	...
Tuberculosis ... ..	1	1	2
Anæmia ... ..	...	1	1
Gall Stones ... ..	...	1	...
<b>ABORTIONS.</b>			
Followed by Sepsis ... ..	...	6	1
" " " (Ectopic) ... ..	...	...	1
" " Hæmorrhage ... ..	...	1	...
" " " (Ectopic) ... ..	1	...	...
From Acute Disease.			
Pneumonia ... ..	1	...	1
Gastritis ... ..	1	...	...
Influenza ... ..	...	...	1
From Toxæmia ... ..	...	...	1
<b>OTHER DISEASES (Unclassifiable).</b>			
"Suffocation" ... ..	1	...	...
Exhaustion from Malnutrition ... ..	...	1	...
<b>TOTALS</b> ... ..	95	110	100

During 1925 there were 135 certified deaths associated with maternity, and the following table shows the various causes, with age-incidence. Eight cases of abortion are included in the 135 cases. It is to be noted that 25.5% of these deaths were caused by sepsis, 18.5% by hæmorrhages, 16.7% by toxæmias, and 13.5% by heart failure. (Under "chronic disease" are grouped cases of chronic renal and cardiac trouble, anæmia, tuberculosis, etc.—and under "acute disease," cases of acute Bright's disease, influenza, the exanthemata, pneumonia not of septic origin, etc.).

Table 29.

Cause.	Under 20	20-24	25-29	30-34	35-39	40-45	45 & up.
Toxæmias ... ..	2	8	5	4	1	2	...
Hæmorrhages ... ..	1	3	6	1	9	2	1
Sepsis ... ..	...	10	10	7	3	3	...
Contracted pelvis ... ..	...	3	1	...	...	1	...
Chronic disease ... ..	1	..	1	3	4	...	...
Acute disease ... ..	...	2	3	4	6	2	1
Embolus ... ..	...	...	2	1	1	2	...
Insanity ... ..	...	...	...	...	1	...	...
Collapse (Heart Failure) ... ..	...	1	2	...	5	1	1
Abortions (Sepsis) ... ..	...	...	...	2	...	...	...
„ (Hæmorrhage) ... ..	...	...	2	...	...	...	...
„ (Acute disease) ... ..	...	...	...	1	1	1	...
„ (Toxæmia) ... ..	1	...	...	...	...	...	...

Hence,

Toxæmias	account for 22 cases out of 135 or 16 %
Hæmorrhages	„ „ 23 „ „ 135 „ 17 %
Sepsis	„ „ 33 „ „ 135 „ 24 %
Contracted pelvis	„ „ 5 „ „ 135 „ 4 %
Chronic disease	„ „ 9 „ „ 135 „ 7 %
Acute „	„ „ 18 „ „ 135 „ 13 %
Embolus	„ „ 6 „ „ 135 „ 4 %
Insanity	„ „ 1 „ „ 135 „ 0.7%
Collapse (Heart failure)	„ „ 10 „ „ 135 „ 13.5%
Sepsis from Abortion	„ „ 2 „ „ 135 „ 1.5%
Haemorrhage „	„ „ 2 „ „ 135 „ 1.5%
Abortion from acute disease	„ „ 3 „ „ 135 „ 2.0%
Abortion from acute Toxæmia	„ „ 1 „ „ 135 „ 0.7%



There was no ante-natal care in 47 cases, and though there was direct evidence of ante-natal conditions receiving attention in 47 cases, in only 13 cases was ante-natal care given before the end of the first six months of pregnancy. In only 18 cases was there definite information of the urine having been tested during pregnancy. In 68 cases the pregnancy went to full time and in 60 cases the delivery was by doctors and in 25 cases by midwives. As regards the nursing of the patients, midwives were responsible in 39 cases, while as many as 32 appear to have received no skilled nursing whatever.

### **HEALTH WEEK.**

During the week commencing October 4th, 1925, "Health Week" was held throughout the administrative county.

The County Health Committee held their 10th Annual Conference in the Town Hall, Durham, at which Mr. S. W. Daw, M.B., B.S., F.R.C.S., gave an address upon "Orthopædics from the public standpoint." A very useful and helpful discussion followed.

By arrangement with the Director of Education health talks were given in all the elementary schools of the county by the teachers.

### **HEALTH VISITORS.**

In 1921 the number of health visitors on the county staff was one superintendent, two assistant superintendents, and 67 health visitors. At the end of 1925 the staff consisted of one superintendent and two assistant superintendents, the approved number of health visitors being 76, but owing to the dearth of properly qualified applicants there were only 72 on the staff at the end of the year. Owing to a decision to extend the maternity and child welfare activities the County Council decided, towards the end of 1925, to increase the health visitors' staff by ten, and the Minister of Health subsequently notified his approval of the proposal. In addition to the above, part-time health visitors are used in certain

areas, viz. :—West Hartlepool and Stockton boroughs (tuberculosis and mental deficiency), Barnard Castle urban district (all duties except head-to-head inspections), Whickham urban district (Tuberculosis, school work, and mental deficiency).

Except in the boroughs of Hartlepool, Jarrow, and Stockton, and the urban district of Whickham, the County Council administers the Notification of Births Act. The requirements of the Act are well observed by those whose duty it is to notify, as is evidenced by the fact that 20,188 notifications were received while the registered births numbered 20,178. The births not notified numbered 763, most of the defaulters being medical practitioners. It is only fair to say, however, that the omission to notify is largely accidental, due in part to the fact that a locum doing holiday duty has not recognised the necessity to notify, while in some cases where both doctor and midwife are in attendance the notification has not been made owing to the midwife expecting the doctor to notify and vice versa. The fact that in spite of 763 births not being notified, the notifications received actually exceeded the registered births, is largely attributable to the number of still-births occurring. The actual number of still-births notified was 628.

The district registrars of births and deaths supply information in respect of registered births which have not been notified, and the medical practitioners and midwives who fail to notify births receive reminders of their obligations under the Notification of Births Act. Health visitors enquire into unnotified births.

Of the notified births 11,988 were reported by doctors and relatives and 8,200 by midwives. The health visitors paid first visits to 21,173 births. In 8.5% of the cases no doctor or certified midwife was present when the birth actually took place. The arrangement, commenced in 1923, by which births attended by midwives were not visited until the end of the lying-in period, was continued. There are certain disadvantages attached to this arrangement and these are being



carefully observed. 42,104 re-visits were paid to children under 12 months, an average of 3 visits per infant.

The children between the ages of 1-5 years received 41,712 visits among them, an average of 0.6 visit each. During the year 1924 a beginning was made in continuous supervision, particulars relating to all children born subsequent to the year 1922 and surviving to the end of their first year being transferred to new cards designed to record progress up to the end of the fifth year. The visitation of children 1-5 has already brought under notice a large number of ante-natal cases. It has also increased the daily average number of visits paid per health visitor, i.e., more visits are possible within the scope of a day's work. Owing to shortage of staff it is quite impossible to ensure reasonably frequent supervision of 1-5 children, either by observation at child welfare centres or the home visits of health visitors, but a beginning has been made, and we are already in possession of interesting data as to some probable causes of ill-health among the 1-5 children. Among other causes the following may be mentioned:—Lack of sufficient sunshine, fresh air, and sleep. The child, particularly between its first and fourth year, does not get out of doors enough, especially in the winter months, as the school children, who would take it out and play with it, are in school during the hours of daylight; the windows of houses are not opened and, worse, they are covered with blinds and curtains which obstruct light and sunshine; moreover, the child between 1 and 5 years frequently occupies the same bed as its parents and consequently its sleep is disturbed. It is true that in some cases houses are so overcrowded that there is literally not floor space for an extra cot, and in some instances poverty precludes the buying of a cot and the necessary bedding. Having admitted this, it must be recorded that in the great majority of cases there is room for a separate cot for the young child and family circumstances permit its purchase. It is custom, and nothing but custom, which prevents the baby and young child being provided with a separate cot. Many children do not get a rest in the middle



of the day and they do not go to bed until the parents go.

The diet of the 1-5 child is wrong in balance because the food of the family is wrong in balance, the grossest error being a preponderance of white bread and potatoes because these foods are relatively cheap and easily prepared. Ordinary fresh cow's milk is little esteemed and comparatively seldom bought. In the course of visits to perhaps twenty houses it may often be noted that perhaps only in five houses is fresh milk regularly bought and then only in a small quantity, say one pint daily for a family of seven or eight persons. The baby under twelve months, if artificially fed, will usually be having dried milk from one of the welfare centres, and a nursing mother may also be having dried milk; and condensed milk is generally used in tea. Meat is expensive and this difficulty is accentuated by a prejudice against foreign meat and a great predilection for the more expensive joints. Butchers report that whereas twenty years ago there was a big demand for the cheaper joints, nowadays the demand is very small. This is probably largely due to the lack of knowledge of methods of making appetising dishes from cheaper meat. There is in some areas a curious idea that meat should not be given to children under five years of age. Green vegetables and fruit are generally very expensive in the county, and it is to be hoped that an increased interest in gardening may overcome this difficulty. As has been pointed out, potatoes are generally cheap, and on all counts it is better that the allotment holder should devote his attention to green vegetables rather than potatoes. Children are frequently given biscuits or sweet cakes last thing at night, or even after they are in bed, and, unfortunately, only a very small proportion of the children at present have their teeth cleaned.

There is a considerable improvement in the clothing of children, but large numbers do not wear woollen under garments. A number of fatal burning accidents are reported yearly, as well as others less serious. In the majority of homes no fireguard is in use in spite of much advice.

All these faulty health habits must be corrected by con-

stant contact, at welfare centres and at the homes, of the people who know with the people who do not know.

There are approximately 80,000 children between the ages of 1 and 5 years in the administrative county. There is neither adequate accommodation for them at our existing child welfare centres nor is the number of health visitors available sufficient in number to exercise the necessary home supervision. It is estimated that to pay four visits annually to children under one year, and two visits annually to children aged 1-5, and also necessary home visits in respect of school children, tuberculosis, and mental defectives, something like 500,000 visits annually would be necessary, which would entail the appointment of at least 132 health visitors.

The health visitors do not attend school clinics, the County Education Committee having a separate staff of nurses for clinic work. The health visitors, however, visit all school children requiring it at their homes, and also undertake head-to-head inspections whenever possible in the schools. During 1925 the County Education Committee made a grant of £2,300 to the County Health Committee for the services of the health visitors in respect to school children.

The health visitors act as tuberculosis nurses, both in the homes and at the dispensaries, and they are also responsible for the supervision of mentally defectives and blind persons, and they supervise, as far as possible, expectant and nursing mothers.

The total number of home visits paid by health visitors during 1925 was 163,691.

One of the important duties of the health visitors is the supervision of infants suffering from inflammation of the eyes. During 1925, 647 such cases were reported on by the health visitors which necessitated 1,876 visits. Owing to the fact that notifications under the Ophthalmia Neonatorum Regulations are made to the district medical officers of health, and not necessarily to the medical officer of the authority responsible for maternity and child welfare, it is not possible to state definitely how many of the 142 cases of ophthalmia



neonatorum known to have been notified under the Regulations in the County Council's notification of birth area in 1925 are included in the 647 cases reported by the health visitors. It is very desirable that arrangements should be made for notifying to the authority responsible for maternity and child welfare without delay all cases of ophthalmia coming under the Regulations.

In addition to an increased number of health visitors attention must be paid to keeping up the efficiency of the staff. Our health visitors have ready access to the homes of the people, and owing to the general spread of education the people are becoming more alive to the possibilities of a higher standard of life. It is essential that health visitors should be equipped with modern knowledge as to hygiene, sanitation, home keeping, food, and the rearing of healthy children. The Durham County Council for many years past has insisted that their health visitors shall be both highly qualified and experienced, a requirement being that a health visitor appointed on to the permanent staff shall be a trained nurse or else possess the Central Midwives Board Certificate, and also hold a recognised certificate of competency as a health visitor; preference is given to those who hold the Government certificate. The salary paid to county health visitors is varied according to the cost of living, but for the last few years the salary has been fixed at £210, rising by £10 annually to £240, this salary including uniform and subsistence allowance, but not locomotion expenses. There has been great difficulty at times in obtaining satisfactory applications for vacant posts, and in consequence the County Council has given financial encouragement to the training of health visitors in the North of England. The first Post Graduate Course for health visitors (The Winter School) at King's College, London, was organised in 1921 by the superintendent health visitor, and each year since its inception the Health Committee has paid the expenses of two of the health visitors attending the course. In the year 1925 the number of health visitors whose expenses were paid was increased to six, or one in twelve of the staff.



In 1923-1924 a training course to enable existing health visitors to obtain the Health Visitors' Diploma of the Board of Education was held, the lectures taking place by kind permission at Armstrong College and the College of Medicine, University of Durham. Twenty-one of the county health visitors attended as well as health visitors working under other local authorities. One member of the county staff failed to complete the course owing to ill-health but all the others obtained the Diploma, several with distinction. The County Council gave financial assistance to the county health visitors attending the course. In 1925 a County of Durham Board for the training of health visitors was instituted with the County Medical Officer as Chairman, and the County Council contributed to the expenses incurred during that year. With the object of attracting well educated women to train as health visitors, the Principal of St. Mary's College, University of Durham, and the head mistresses of a girls' high school and a secondary school, were added to the Board, in addition to some of the assistant medical officers of health and a representative of the Women Sanitary Inspectors' and Health Visitors' Association. The Superintendent Health Visitor acts as organising secretary. Lectures are held in the University Lecture Rooms, Durham, and the College of Medicine, Newcastle-on-Tyne. In 1925 the County Health Committee approved a half salary loan scheme to selected student health visitors attending the course, who must be fully trained general or sick children's nurses and hold the Central Midwives Board Certificate, on the understanding that if required they will on obtaining their certificate take up appointments as health visitors on the county staff. There is a great need for hostel accommodation for the students and a voluntary fund is being raised for the purpose. The hostel is to have a well equipped lecture room and a library.

Several of our health visitors are excellent lecturers, but up to the present, owing to pressure of work, it has not been possible to detach them from home visiting or clinic work for the special purpose of lecturing. It is very desirable that the lecturing work should be carried out by the county health

visitors, as it affords a welcome variation of the usual routine work. Generally speaking, lectures are of very little avail unless there is good demonstration "plant" accompanying, and there is a nucleus propaganda plant in the welfare exhibition. It is hoped to add considerably to this nucleus and to have in addition a good stock of lantern slides and posters.

The County Welfare Journal has now been issued over a period of five years and has been almost entirely self-supporting. The issue of the middle four pages as a Children's Supplement, commenced in 1924, proved of definite value, the teachers using the articles therein as a basis for hygiene lessons in school. The Journal has a circulation of approximately 3,000, it is very ably edited by Miss Cooper Hodgson, the Superintendent Health Visitor, who gives a great deal of her spare time to the work, and it is undoubtedly of great educational value and also of great interest to those interested in the health work of the county.

The County Council have a scheme in operation for providing milk free or at a reduced price to necessitous cases, based on a scale of income approved by the Minister of Health. During 1925 there was a very large amount of unemployment in most of the industrial parts of the county and this involved a greatly increased expenditure in respect of the provision of free milk, as many as 4,861 new cases receiving milk assistance during the year and 1,932 were discontinued. At the end of the year approximately 3,000 cases were receiving milk assistance, this milk being supplied through the welfare centres in 80% of the cases and through dried milk stations in 11%, and wet milk was supplied to the extent of 8.8% chiefly in outlying districts or where no milk stations operated. The total expenditure incurred by the County Council in respect of the supply of milk free or at reduced prices amounted during the financial year ended March, 1926, to £11,072 12s. 8d., the cost in 1924 being £4,298 2s. 11d. and in 1923 £2,575 18s. 5d.

The following tables are interesting, the first as indicating the work done by the health visitors during the year ended



31st December, 1925, and the other giving a comparison of the number of visits, etc., paid by the health visitors during the years 1921 and 1925:—

**Table 30.**

**Summary of work done by the Health Visitors for the year ended 31st December, 1925.**

MATERNITY AND CHILD WELFARE.				
Ante-natal 1st visits .....				2,417
Re-visits .....				1,543
Births 1st visits .....				21,173
Re-visits .....				42,104
Children 1—5 .....				41,712
Uncertified Midwives .....				183
Measles 1st visits .....				73
Re-visits .....				7
				<hr/>
				109,212
Plus 3,525 attendances at Child Welfare Centres × 17 visits				59,925
				<hr/>
			Total.....	169,137
				<hr/>
TUBERCULOSIS.				
Tuberculosis 1st visits .....				2,703
Re-visits .....				19,700
				<hr/>
				22,403
Plus 1,647 attendances at Dispensaries × 17 visits .....				27,999
				<hr/>
			Total.....	50,402
				<hr/>
SCHOOL WORK.				
School Children (Home visits) .....				18,217
Schools visited .....				4,435
				<hr/>
				22,652
Plus Head-to-head Inspections, 402 days × 17 visits .....				6,834
Plus attendances at Dental Clinics, 175 days × 17 visits...				2,975
				<hr/>
			Total.....	32,461
				<hr/>
VENEREAL DISEASE.				
Attendances at V.D. Clinics, 34 days × 17 visits .....				578
MENTAL DEFICIENCY.				
Total number of visits paid to mentally defective persons...				2,198
GRAND TOTALS.				
Total number of actual visits .....				163,691
Estimated total of classified visits .....				254,776
Unclassified visits .....				7,226
Ineffective visits .....				9,366
Proportions of work in percentages:—				
M. & C.W.	Tuberculosis.	Mental Deficiency.	V.D.	School.
66·39	19·78	·86	·23	12·74
Reported to District Medical Officer of Health:—				
Overcrowding .....			2,920	
Sanitary Defects .....			906	
			<hr/>	
			Total.....	3,826



### Table 31.

	1921.	
Number of Health Visitors		
Staff .....		72

## MATERNTY &amp; CHILD WELFARE.

Ante-Natal 1st Visits ....	1632
Re-Visits ...	876
Children under 1 year	
1st Visits ...	24395
Re-Visits ...	40712
Children 1-5 Visits .....	20387
Plus 2649 attendances at Child Welfare Centres	
× 15 Visits .....	39735
	<hr/>
	127737

## TUBERCULOSIS.

1st Visits .....	2407
Re-Visits .....	18680
Plus 1604 attendances at Dispensaries $\times$ 15 Visits	24060
	<hr/>
	45147

## SCHOOL WORK.

School Children (home visits) .....	25774
Plus 76 days head to head inspections $\times$ 15 Visits	1140
Plus 82 attendances at Dental Clinics $\times$ 15 Visits .....	1230
Plus other duties 2000 Visits .....	2000
	<hr/> 30144

Actual total of visits not including attendance at Dispensaries or Child Welfare Centres or ineffective visits .....146059

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Estimated total of visits ...203028

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Proportions of work:—

**MATERNITY  
& CHILD**

WELFARE.	TUBERCULOSIS.	SCHOOL.
62·92	22·24	14·84
Reported to District Medical Officers of Health.		
Overcrowding .....		900
Other Sanitary Defects...		685
		<hr/> 1585

	1925.	
Number of Health Visitors		
Staff .....		79

## MATERNITY & CHILD WELFARE.

Ante-Natal 1st Visits ....	2417
Re-Visits ...	1543
Children under 1 year	
1st Visits ...	21173
Re-Visits ...	42104
Children 1-5 Visits .....	41712
Plus 2525 attendances at Child Welfare Centres × 17 Visits .....	59925
	<hr/> 169137

## TUBERCULOSIS.

1st Visits .....	2703
Re-Visits .....	19700
Plus 1647 attendances at Dispensaries $\times$ 1/7 Visits	27999
	<hr/>
	50402

## SCHOOL WORK.

Total Visits .....	22652
Plus 402 days head to head inspections $\times$ 17 Visits .....	6834
Plus 175 days at Dental Clinics $\times$ 17 Visits ....	2975
	<hr/>
	32461

## VENEREAL DISEASES.

Attendance at V.D. Clinics 34 days × 17 visits .....	578
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## MENTAL DEFICIENCY.

Total number of visits paid to Mentally Defective persons .....	2198
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Actual total of visits .....163691

Estimated total of visits ....262002

Proportions of work:—

## MATERNITY

& CHILD		
WELFARE.	TUBERCULOSIS.	SCHOOL.
66·39	19·78	12·74
MENTAL		VENEREAL
DEFICIENCY.		DISEASES.
0·86		0·23

Reported to District Medical  
Officers of Health.

Overcrowding .....	2920
Other Sanitary Defects...	906

### MIDWIVES ACTS.

During the year 1925, 258 midwives gave notice of intention to practise in the administrative county, and of this number 230 were trained and 28 were untrained. The number of midwives in practice has increased from 164 in 1921 to 258 in 1925, while the number of those untrained has decreased during the same period from 57 to 28.

At the end of 1925, 76 trained midwives were employed by district nursing associations in the administrative county, 6 midwives were working for medical practitioners, and 19 were practising with the assistance of a subsidy under the County Midwifery Scheme. The midwives appointed under the county scheme attended during 1925, 1,513 cases, and in 1,362 of these they acted as midwives and in 151 cases as maternity nurses.

The number of visits paid to midwives and patients by the County Midwives Inspector has increased from 645 in 1921 to 1,684 in 1925. The reason for this increase is partly that a larger number of midwives are now in practice and also to some extent owing to the new rule of the Central Midwives Board requiring a midwife to notify to the supervising authority the death of every mother and child occurring in her practice.

Cases of ophthalmia neonatorum in the practice of midwives received careful attention from the Midwives Inspector. The cases notified by midwives under the Ophthalmia Neonatorum Regulations numbered 34 in 1921, and 44, 34, 29, and 47 in the four succeeding years. In 184 cases midwives during 1925 called in medical aid because of the inflammation of the eyes of infants, and these were also carefully supervised by the Midwives Inspector, though the majority of them were not notified as cases of ophthalmia neonatorum to the medical officer of health. Five cases of ophthalmia in newborn infants were treated in hospital under the county scheme and 13 had out-patient treatment. In no case during 1925 was there any evidence of permanent damage to the eyes.



The deaths of three midwives practising in the administrative county occurred during the year 1925.

The arrangement which came into operation some time ago by which the Superintendent of the County Nursing Association acts as County Inspector in respect of midwives employed by district nursing associations affiliated to the County Nursing Association was continued during the year. Every encouragement is given by the County Council to district nursing associations appointing properly qualified midwives for their area, and the County Council makes a grant in respect of approved midwives, of £30 per annum in respect of district nurses who act as midwives and maternity nurses, and also guarantee to make up the deficit in the salary of whole-time approved midwives appointed by district nursing associations. The actual grants made by the County Council to district nursing associations in the county in respect of the provision of nurses undertaking midwifery and maternity work was £2,473 12s. 10d. for the year ending 31st March, 1926. The net cost to the County Council of subsidising midwives appointed by the Council amounted to £1,118 12s. 5d. for the year ending 31st March, 1926. In districts where the services of a midwife are needed the County Council does not directly subsidise the midwife if the district nursing association concerned is willing to provide one. In addition to the grants to district nursing associations for midwifery services, the County Council also pays a grant of £10 per annum to the initial expenses of new district nursing associations providing a midwife and also a grant to district nursing associations of £10 per 1,000 population for the nursing of certain special diseases, such as tuberculosis, ophthalmia, measles, and epidemic diarrhoea, this grant increasing pro rata according to the population of the area served by the district association. During 1925 the County Council also decided, with the approval of the Ministry of Health, to pay an annual grant of £150 per annum to the County Nursing Association for the services rendered by the Association in respect of the training and provision of midwives.



The following table gives the notifications of sending for medical help, etc., received from certified midwives during the past five years, and the figures show a progressive development:—

**Table 32.**

	1921	1922	1923	1924	1925
Sending for medical help ... ..	1706	1890	2011	2670	2858
Still-births ... ..	150	169	158	198	202
Deaths of Mothers ... ..	?	?	2	9	27
Deaths of Infants ... ..	24	16	13	70	146
Liability to be a source of infection	17	12	15	29	43
Laying out the dead ... ..	31	48	49	58	65
Artificial feeding ... ..	41	38	51	71	59

There was a considerable increase in the number of cases of puerperal fever notified as occurring in the practice of midwives during 1925, 22 cases and 9 deaths occurring, while in 1921 there were 8 such cases and 1 death; in 1922, 5 cases and 2 deaths; in 1923, 6 cases and 2 deaths; and in 1924, 17 cases and 7 deaths. All these cases were carefully investigated.

An arrangement has now been made with the Princess Mary Maternity Hospital, Newcastle-on-Tyne, for the in-patient treatment of county cases of puerperal sepsis. It is probable that medical practitioners will more generally realise the importance of the prompt notification of cases of puerperal fever occurring in their practice when they know that efforts will be made to provide hospital treatment, or special nursing treatment, for cases requiring it, and this may account for the considerable increase in the number of notified cases during the last two years.

The following table gives the approximate number of births attended by midwives in the administrative county during the last five years and the percentage of such cases to total births, and it will be noted that there is a progressive increase in the proportion of cases attended by midwives.

**Table 33.**

Year.	Number of Births notified by Midwives.	Percentage of Births notified by Midwives to total Births registered.
1921 ... ..	8,492	29·9
1922 ... ..	8,350	33·3
1923 ... ..	9,277	37·1
1924 ... ..	10,324	41·0
1925 ... ..	10,083	42·5

During the year a number of useful and interesting lectures were given by the welfare medical officers to the midwives in different parts of the county and were much appreciated, and it is hoped in the near future to arrange post-certificate courses under the new Ministry of Health regulations for midwives practising in this county.

There is available for midwifery cases occurring in the county the County Maternity Home at Bishop Auckland, with accommodation for approximately 17 patients, and the Richard Murray Hospital at Blackhill, which has a maternity block subsidised by the County Council, with accommodation for 16 patients. The County Council also makes an annual grant to the Princess Mary Maternity Hospital, Newcastle-on-Tyne, for the institutional treatment of cases sent in from the administrative county, and they also have an arrangement with the authorities responsible for the Sunderland Borough Maternity Home and the West Hartlepool Borough Maternity

Home by which approved patients are received at these institutions.

The following table gives the number of patients from the administrative county admitted into maternity homes and hospitals during 1925.

**Table 34.**

Maternity Home or Hospital.	Number of cases admitted during 1925.
County Maternity Home, Bishop Auckland ... ..	266
Richard Murray Hospital, Blackhill ... ..	205
Princess Mary Maternity Hospital, Newcastle ... ..	170
Sunderland Borough Maternity Home, Sunderland ... ..	36
Grantully Maternity Home, West Hartlepool ... ..	14
<b>Total</b> ... ..	<b>691</b>

Under the Midwives Acts one midwife was the subject of representation to the Central Midwives Board on account of misconduct, and her certificate was subsequently cancelled. As regards the three midwives in respect of whom representation was made to the Central Midwives Board during 1924 on account of misconduct, and who were subsequently placed on six months probation, satisfactory reports by me were subsequently submitted to the Central Midwives Board regarding two of the midwives concerned, and an unsatisfactory report on the methods and practise of the third midwife, and in all these cases the Board resolved to take no further action. During the five years 1921-25, 9 midwives have been reported to the Central Midwives Board and 5 have had their names removed from the Roll of the Central Midwives Board and their certificates cancelled.



Table shewing the total number of certified midwives in each sanitary district with the conditions under which they were certified by the Central Midwives Board, and the number of such midwives who gave notice of their intention to practise, during each of the ten years,

Total Number of Certified Midwives	Conditions under which Certificate was granted	Total number who notified their intention to practise.
------------------------------------	--	--

\*Figures as to "Trained" and "Untrained" not available

their intention to practise.

1.	1922.	1923.	1924.	1925.
Untrained.	Trained.	Untrained.	Trained.	Untrained.
3	4	3	4	1
2	1	2	1	2
3	4	3	5	3
5	11	4	12	3
...	1	...	2	...
...	1	...	1	...
...	2	...	7	...
...	...	...	...	...
3	4	2	5	2

During 1925, 1187 cases of uncertified midwifery practice were reported and enquired into, and a warning was sent to 30 unqualified women. There is undoubtedly still a large amount of midwifery practice carried on by women who do not hold the certificate of the Central Midwives Board, and in the present state of the law it is extremely difficult to obtain evidence which would secure a conviction. It is very desirable that the Midwives Acts should be so strengthened as to render practise of midwifery by uncertified persons impossible except in cases of special emergency.

The following is a table showing the total number of certified midwives in each sanitary district, indicating the conditions under which they were certified by the Central Midwives Board and the number of such midwives who gave notice of their intention to practise, during each of the ten years 1916-25.



With regard to the fees required to be paid by the County Council to medical practitioners called in by midwives in accordance with Section 14 of the Midwives Act, 1918, the following statement gives particulars of the fees paid annually by the County Council to medical practitioners so called in from the 1st January, 1919, the date on which the Midwives Act, 1918, came into operation, to the 31st March, 1926.

1st January, 1919, to			
31st March, 1920	.....	£499	11 0
1920-1921	.....	£1,694	9 6
1921-1922	.....	£2,248	8 6
1922-1923	.....	£2,390	18 6
1923-1924	.....	£2,389	7 0
1924-1925	.....	£3,034	4 6
1925-1926	.....	£3,502	14 0

It will be noted that there has been a very marked increase in the fees, more particularly during the last two years. This to some extent is probably to be accounted for by the larger number of midwives practising in the county, but it may be noted that in some districts the midwives called in medical aid in a very large proportion of their cases, varying from 6% to 50% of the total cases attended by midwives. Certain midwives requisition medical help in a large proportion of their cases before the birth occurs, while others appear to delay sending for medical help until after birth; thus one midwife who sent for medical help in 46 instances requisitioned the help in 42 of the cases before birth, while another midwife who sent for medical help in 74 instances requisitioned the help in 70 of the cases after the birth occurred.

Another interesting fact is that in some districts certain medical practitioners receive in the aggregate large fees annually which greatly exceed the average paid to medical practitioners in the county. In one urban district, for instance, where there were five medical practitioners or partnerships, out of a total of £240 13s. od. paid in medical fees in one year, one practitioner received £190 10s. od., another

£49 3s. od., one received £1 os. od., and two practitioners received nothing. All the doctors in question are medical practitioners and are, I believe, prepared to respond to a midwife's call. In another town less than one-half of the doctors practising in the industrial areas of the district were requisitioned by midwives, and of the total sum of £385 19s. od. paid to the ten doctors who were requisitioned by midwives, £352 2s. od. was paid to four doctors, one receiving £124 os. od. in the year and another over £98 os. od. These figures are at least suggestive that in these districts, at any rate, the patient has not an absolute free choice of doctor but is unduly influenced by the midwife.

The County Council, as the Local Supervising Authority, do not attempt to recover the fees from the patient or from the husband or other person liable to maintain the patient.

### **TUBERCULOSIS.**

During 1925 there was no actual extension to record in respect of the county tuberculosis scheme, but, subject to the approval of the Minister of Health, the County Council decided to utilise Seaham Hall, with approximately 80 beds, for female patients, and Earl's House, near Durham, which was formerly an industrial school, with accommodation for approximately 80 male children suffering from pulmonary tuberculosis. Considerable correspondence passed between the County Council and the Minister of Health on these matters, and more than one conference was held at the offices of the Ministry of Health to discuss plans, etc. The financial position of the country somewhat delayed matters, as did the necessary modification of plans to meet the requirements of the Minister of Health, but I am glad to be able to report that the Minister of Health has now given his provisional approval to the use of both Seaham Hall and Earl's House for the treatment of cases of tuberculosis. The approximate cost of the alterations and additions necessary to fit these institutions for the proper treatment of tuberculosis cases is estimated at £24,071. Both Seaham Hall and Earl's House are

well situated in spacious grounds, the former being on high ground close to the sea, near Seaham Harbour, while Earl's House is placed on a comparatively high elevation about two miles to the west of Durham City, and the available land includes a home farm. There are also on the estate several houses and cottages which can be usefully employed in connection with the use of the institution for patients. The additional accommodation is very urgently needed for at all times there is a very long waiting list which usually considerably exceeds 200. Provided the revised estimate of the work is not materially exceeded an addition of approximately 160 beds for tuberculosis cases will be obtained at a capital expenditure of £150 per bed.

The following particulars in respect to the county tuberculosis scheme have been compiled by Dr. D. F. Macrae, the Central Tuberculosis Medical Officer.

#### **Medical Staff.**

In May, 1922, Dr. W. H. Brodie, the Tuberculosis Medical Officer for the Southern District, resigned from the services of the County Council to take up an appointment in the County Borough of Darlington. This was the only change in the medical staff during the past five years.

By re-arranging the dispensary districts in the following manner, the appointment of a successor was rendered unnecessary—

1. Dr. Gibbons, who was then in charge of the North-Western District, was transferred to the Southern District with Darlington as his headquarters.
2. Dr. Macrae, the Chief Tuberculosis Medical Officer, took over Stanley Dispensary in the North-Western District and the area served by that dispensary.
3. Dr. Boleyn took charge of Consett Dispensary in the North-Western District and the area served by that Dispensary.



### Sanatoria and Hospitals.

The following institutions were utilised to accommodate patients suffering from pulmonary and non-pulmonary tuberculosis:—Holywood Hall Sanatorium, Tindale Crescent Sanatorium, Helmington Row Sanatorium, Black Fell Sanatorium, Sealburn Sanatorium, Sunderland Sanatorium, and Leazes House Sanatorium in the County of Durham, Stannington Sanatorium and Barrasford Sanatorium in the County of Northumberland.

Sealburn Sanatorium was closed on 15th May and handed over to the Blaydon, Ryton and Whickham Joint Hospital Board for the accommodation of smallpox cases from that area, in accordance with the agreement between the local authority and the County Council.

Black Fell Sanatorium, near Birtley, was closed on the 25th November for a similar reason. In neither case were we able to obtain equivalent accommodation for more than a few of the patients from these institutions, and the remainder of the patients had to be sent home and re-admitted as vacancies occurred in other sanatoria.

Holywood Hall Sanatorium, which is equipped and administered by the Durham County Council, has accommodation for 210 cases—180 men and 30 male children. The staff of the institution consists of the following:—

Dr. Martin ... Acting Medical Superintendent,  
 Dr. Begbie ... Acting Assistant Medical Officer,  
 and a nursing staff of 26 including the matron.

Sunderland Sanatorium, which consists of a pavilion of 25 beds for female patients, was erected by the Durham County Council in the grounds of the Rural District Isolation Hospital at Hylton. The staff of the Isolation Hospital and Sanatorium is as follows:—

Dr. Scott ... Medical Superintendent, and  
 11 nurses including the matron,

At the present time 5 nurses are kept specially for tuberculous patients.

Helmington Row Tuberculosis Hospital, which consists of a single pavilion of 14 beds for male patients mostly of the chronic ambulant type, was erected by the County Council in the grounds of the Isolation Hospital belonging to the Auckland, Shildon and Willington Joint Hospital Board.

Dr. Steel is the Medical Superintendent, and the nursing staff consists of the matron and 11 nurses, of whom 1 staff nurse and 2 probationer nurses are in the tuberculosis ward.

Tindale Crescent Tuberculosis Hospital, which consists of a pavilion of 12 beds for female cases, early and intermediate was erected by the Durham County Council in the grounds of the Isolation Hospital belonging to the Auckland, Shildon and Willington Joint Hospital Board.

The Medical Superintendent is Dr. Smeddle, and the nursing staff consists of the matron and 11 nurses, 3 of whom are employed in the tuberculosis pavilion.

Leazes House Sanatorium, situated at Wolsingham in Weardale, in the western part of the county, belongs to the National Society for the Cure and Prevention of Tuberculosis. The average number of beds occupied by county patients during the year was eight.

Only female patients with early tuberculosis of the lungs are admitted here.

Stannington Sanatorium, with accommodation for 250 children, both pulmonary and non-pulmonary, is situated near Morpeth in the County of Northumberland, and is the property of the Poor Children's Holiday Association,

During the year we have had an average of 90 children in that institution, one-third of whom were suffering from surgical tuberculosis.

Barrasford Sanatorium, which is situated in Northumberland, belongs to the Corporation of Newcastle. Two Durham County cases were admitted to this sanatorium in December when Black Fell closed down.

### General Hospitals.

The county have arrangements with the following general hospitals for the treatment of surgical tuberculosis:—

Royal Infirmary, Sunderland.

Children's Hospital, Sunderland.

Monkwearmouth & Southwick Hospital, Sunderland.

Royal Victoria Infirmary, Newcastle.

Children's Hospital, Gateshead.

Ingham Infirmary, South Shields.

Durham County Hospital.

Sherburn Hospital, Nr. Durham.

Hartlepool Hospital.

Greenbank Hospital, Darlington.

Stockton & Thornaby Hospital.

War Memorial Hospital, Whickham.

The total average accommodation available during the year in sanatoria and hospitals was as follows:—

	Number of Beds.
Sanatoria .....	386
General Hospitals .....	63
	<hr/>
Total	449

The following tables show the average number of beds available during the year for males, females and children, also the allocation of the beds, together with the extent of residential treatment, and the immediate results of that treatment;—



Table 36.

Average Number of Beds available for Patients during  
the Year 1925.

	Observation.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.	Total.
		"Sanatorium" Beds.	"Hospital" Beds.		
Adult Males ... ..	4	151	14	33	202
Adult Females ... ..	Nil.	33	36	10	79
Children under 15 ... ..	Nil.	90	...	78	168
Total ... ..	4	274	50	121	449

Table 37.

Return showing the Extent of Residential Treatment  
during the Year 1925.

		In Institutions, on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31.
Number of Patients .....	Adults. M.	155	404	323	39	197
	F.	77	263	272	16	52
	Children. M.	111	205	213	5	98
	F.	69	124	114	6	73
Number of Observation Cases .....	Adults. M.	1	6	7	...	...
	F.	...	...	...	...	...
	Children. M.	...	...	...	...	...
	F.	...	...	...	...	...
Total ... ..		413	1002	929	66	420

Table 38.

Return showing the immediate results of treatment of patients and of observation of doubtful cases discharged from Residential Institutions during the year 1925.

Classification on admission to the Institution.		Condition at time of discharge.	Duration of Residential Treatment in the Institution.												
			Under 3 Months.			3—6 Months.			6—12 Months.			More than 12 Months.			Total.
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Pulmonary Tuberculosis.	Quiescent .. .. .	4	11	..	6	41	14	3	6	22	1	4	9	121	
	Improved .. .. .	36	21	4	71	49	17	46	8	14	9	2	21	298	
	No material Improvement.	40	48	14	32	15	2	17	5	8	10	3	9	203	
	Died in Institution..	23	12	1	6	2	..	3	..	..	3	2	..	52	
Non-Pulmonary Tuberculosis.	Quiescent or Arrested ..	1	1	7	1	..	4	..	1	5	..	..	2	22	
	Improved .. .. .	17	25	89	12	11	25	5	4	16	5	3	20	232	
	No material Improvement.	5	11	14	2	3	3	..	..	6	..	..	2	46	
	Died in Institution..	3	..	9	1	..	1	..	..	..	..	..	..	14	

		Under 1 Week.			1—2 Weeks.			2—4 Weeks.			More than 4 Weeks.			
Observation for purpose of diagnosis.	Tuberculous .. .. .	..	..	..	..	..	..	..	..	..	6	..	..	6
	Non-Tuberculous .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Doubtful .. .. .	..	..	..	..	..	..	..	..	..	1	..	..	1

Cases in all stages of the disease are admitted to Hollywood Hall Sanatorium, our principal sanatorium for men, the main object being the treatment and prevention of tuberculosis on the most practical lines without an eye to sanatorium annual statistics. It is much more easy to segregate advanced cases in a sanatorium such as Hollywood than in smaller institutions which become known as "Homes for the dying," and patients refuse to enter them. Owing to the general depression caused by the death of a patient in the smaller institutions of 12 or 14 bed pavilions, advanced dying cases are not sent to either Helmington Row or Tindale Crescent if it can possibly be avoided.

In the large community now in residence at Holywood Hall the death of a patient passes almost unnoticed amongst the others, whereas in Helmington Row and Tindale Crescent it has been on more than one occasion the direct cause of the withdrawal of several cases after a brief period of treatment.

### **Non-Pulmonary Tuberculosis in Children.**

The normal accommodation for surgical tuberculosis in children was approximately 78 beds. Of these 30 were at Stannington Children's Sanatorium, Northumberland, and the remainder in general hospitals. There is considerable difficulty in treating cases of surgical tuberculosis in general hospitals as the children cannot be kept in these institutions for the length of time necessary to secure the arrest of the disease. Conservative treatment is the treatment of choice in non-pulmonary tuberculosis.

Special sanatoria in the country, far removed from the smoke-laden atmosphere of towns and cities, are the best places in which to treat these cases. The treatment of bone and joint lesions is primarily the treatment of the general disease aided by the mechanical appliances which the morbid process demands. In these institutions in the country patients can be kept continually in the open air under the best hygienic conditions. Furthermore, when collected together in special sanatoria such as Stannington their education can be initiated or continued, and a long period of schooling is not lost. With this end in view the County Council have approached the Governors of Stannington Sanatorium for further accommodation for surgical tuberculosis, which we hope to get early in 1926 on the opening of their new pavilion. Accommodation for an additional 30 cases of surgical tuberculosis in female children is also being provided for at Seaham Hall, and will probably become available before the end of 1926.

It is now held that 30 or 40% of all cases of surgical tuberculosis in children are of bovine origin. Surely, therefore, it is imperative that we should concentrate our efforts on securing a clean, pure milk supply. The Tuberculosis Order of 1925 should be a great help to local authorities in reducing



this rate but there is still need of combined team work between workers in veterinary medicine and human medicine in order to eradicate the bovine bacilli of tuberculosis from the children's milk supply.

### **Non-Pulmonary Tuberculosis in Adults.**

This disease very often attacks adults of both sexes, spine and hip being especially affected. These patients need prompt admission to a special hospital even more urgently than children. At the present time accommodation is provided for approximately 25 male adults with surgical tuberculosis at Holywood Hall Sanatorium. Until Black Fell Sanatorium was closed in November, 1925, accommodation was available there for 6 female adults with surgical tuberculosis who were isolated from the pulmonary cases.

With the closing of Black Fell we unfortunately lost this accommodation and this type of case will have to be sent to a general hospital pending the opening of Seaham Hall, where at least 10 beds have been ear-marked for female adults with surgical tuberculosis.

### **X-Ray Photography and X-Ray and Ultra-Violet Ray Therapy.**

The arrangements made in 1924 with Dr. Gamlen for X-Ray examinations and Actino-Therapy were continued during the year.

Two hundred X-Ray photographs were taken on the recommendation of the tuberculosis medical officers in cases presenting difficulty in diagnosis. Fifty per cent. of these examinations were of the chest and vertebral columns for various lesions. In chest cases a screen examination is always made first, and particular attention is given to the lungs and movements of the diaphragms. This is followed by a radiograph which includes both sides of the chest, and in order to obtain good detail the exposure is generally of about one second's duration. The radiographs of the vertebral column for tuberculosis are of particular interest because in early cases the changes are not shown in the ordinary anterior-posterior views. The findings, whether negative or positive, are always verified by lateral views of the column,

During the year, 2,088 treatments have been given, mostly by ultra-violet radiation, with some X-Ray therapy in a few cases. The majority of the cases treated were tuberculous lesions of the skin in various parts of the body, and treatments have generally been once weekly.

In addition to the local treatment, general treatment is invariably given to two or three patients simultaneously. Each patient has a record card giving the time of exposure, the type of lamp used, regions under exposure, and all other necessary details. The Mercury Vapour Lamps of the following types are the ones most often in use:—

1. The Alpine Sun Lamp.
2. Jesionek Lamp.
3. Kromayer Lamp.

A group of small arc lamps using loaded carbons is generally used for general treatment. The Tungsten Arc Lamp is used occasionally for small local areas only.

After having closely watched the results of ultra-violet radiation, I (Dr. Macrae) am of opinion that under no other method of treatment have I seen such satisfactory and rapid improvement in tuberculosis of the skin.

### **Dispensary Organisation.**

A new tuberculosis dispensary at the Whickham and District War Memorial Hospital was opened on 23rd January, 1924. Since then weekly clinics have been held there each Wednesday, and arrangements have also been made whereby special cases are seen by appointment on Fridays, when necessary.

Dr. Macrae, the Chief Tuberculosis Officer, took charge of the new dispensary with the area it served, and Dr. Boleyn was given the Stanley area in view of the fact that the work at Jarrow was considerably reduced.

With the exception of some minor alterations to suit the travelling conveniences of the patients, the composition of the dispensary districts is the same as last year. Appended is a statement showing the position of the dispensaries, the area served by them, the names of the tuberculosis officers and the times of their attendances at the clinics,

## Tuberculosis Scheme.

District.	District Tuberculosis Medical Officer.	Constitution of District.	Situation of Tuberculosis Dispensary.	Days and Hours of Opening of Dispensary.
Northern District	Dr. D. F. Macrae	Ryton Urban District. Whickham do. Blaydon Urban District.—Except Chopwell. Tanfield Urban District.—Burnopfield only.	Tuberculosis Dispensary, Whickham War Memorial Hospital, Whickham, Co. Durham.	Wednesdays, 10 a.m. Women and Children. 2 p.m. Men. Fridays, 10 a.m. By appointment.
North-Eastern District.....	Dr. J. G. W. Boleyn.	Felling Urban District. Hebburn do. Jarrow do. Washington do. South Shields Rural District.—Except the Parishes of Whitburn and Boldon.	1, Kent Street, Jarrow-on-Tyne.	Mondays, 9-30 a.m. Women and Children. Wednesdays, 9-30 a.m. Men and Boys over 12 years.
North-Western District.....	Dr. J. G. W. Boleyn.	Annfield Plain Urban District. Benfieldside do. Consett do. Leadgate do. Stanley do. Blaydon Urban District.—Chopwell only. Tanfield Urban District.—Except Burnopfield. Lanchester Rural District.—Except the Parish of Esh. Chester-le-Street Rural District.—Beamish and Mahogany Row only.	Holmside House, Stanley.  11, East Parade, Consett.	Fridays, 10 a.m. All Patients.  Thursdays, 10-30 a.m. All Patients.
Western District	Dr. J. R. Caldwell.	Bishop Auckland Urban District. Crook Urban District. Sbildon do. Spennymoor do. Stanhope do. Tow Law do. Willington do. Auckland Rural District. Weardale do. Barnard Castle Rural District.—Parishes of Woodland and Cockfield only. Sedgefield Rural District.—Parishes of Ferryhill, Cornforth, Chilton, Mainsforth and Thrislington only. Durham Rural District.—Parish of Brancepeth only.	56, Cockton Hill Road, Bishop Auckland.	Mondays, 9-30 a.m. Women and Children. (New cases only.) Tuesdays, 9-30 a.m. Women and Children. (Old cases only.) Wednesdays, 9-30—12. Women and Children. Wednesdays, 12-30—3. Men. (Spennymoor Patients.) Fridays, 9-30 a.m. Men only.
Central District...	Dr. S. K. Young	Durham Urban District. Brandon do. Chester-le-Street do. Hetton do. Durham Rural District.—Except the Parish of Brancepeth. Chester-le-Street Rural District.—Except Beamish and Mahogany Row. Houghton-le-Spring Rural District.—East and West Rainton, Moorsley, Great and Little Eppleton and the Parish of Morton Grange only. Lanchester Rural District.—Parish of Esh only. Easington Rural District.—Parish of Thornley only.	1, Ropery Lane, Chester-le-Street.  Sherburn Hospital, Nr. Durham.	Mondays, 9-30 a.m. Men. Thursdays, 9-30 a.m. Women and Children.  Tuesdays, 9 a.m. Women and Children. Fridays, 9 a.m. Men.
Southern District	Dr. J. F. Gibbons	Darlington Borough. Stockton do. Barnard Castle Urban District. Billingham do. Darlington Rural District. Stockton do. Barnard Castle Rural District.—Except the Parishes of Woodland and Cockfield. Sedgefield Rural District.—Except the Parishes of Ferryhill, Cornforth, Chilton, Mainsforth, Thrislington and Trimdon.	Feethams, Darlington.  Cleveland House, Bowesfield Lane, Stockton-on-Tees.	Tuesdays, 9-30 a.m. Men. Fridays, 9-30 a.m. Women and Children.  Wednesdays, 10 a.m. Men. Thursdays, 10 a.m. Women and Children.
Eastern or Coast District.....	Dr. A. M. Masters	Hartlepool Urban District. Houghton-le-Spring Urban District. Sedham Harbour do. Southwick-on-Wear do. Hartlepool Rural District. Sunderland do. Easington Rural District.—Except the Parish of Thornley. Houghton-le-Spring Rural District.—Except East and West Rainton, Moorsley, Great and Little Eppleton and the Parish of Morton Grange. Sedgefield Rural District.—Parish of Trimdon only. South Shields Rural District.—Parishes of Whitburn and Boldon only.	Mill House, Stranton, West Hartlepool.  31, West Snni-side, Sunderland. Third Street, Horden.	Mondays, 11 a.m. All Patients.  Wednesdays, 10 a.m. Men. Thursdays, 10 a.m. Women and Children.  Tuesdays, 11 a.m. All Patients.





The following table shows the work of the 12 dispensaries during the year:—

Table 39.

DIAGNOSIS.	Pulmonary.				Non-Pulmonary.				TOTAL.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<b>A. New Cases examined during the year (excluding contacts) —</b>												
(a) Definitely Tuberculous ..	395	330	162	134	107	137	215	204	502	467	377	338
(b) Doubtfully Tuberculous ..	..	..	..	..	..	..	..	..	86	80	97	92
(c) Non-Tuberculous ..	..	..	..	..	..	..	..	..	244	213	332	325
<b>B. Contacts examined during the year:—</b>												
(a) Definitely Tuberculous ..	16	26	26	36	13	7	32	33	29	33	58	69
(b) Doubtfully Tuberculous ..	..	..	..	..	..	..	..	..	9	15	41	46
(c) Non-Tuberculous ..	..	..	..	..	..	..	..	..	20	40	58	59
<b>C Cases written off the Dispensary Register as (a) cured ..</b>												
(a) .. ..	23	23	21	15	33	28	64	47	56	51	85	6
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ..	..	..	..	..	..	..	..	..	373	335	530	515
<b>D Number of Persons on Dispensary Register on December 31st:—</b>												
(a) Diagnosis completed ..	1160	863	502	473	363	431	679	703	1523	1294	1181	1176
(b) Diagnosis not completed ..	..	..	..	..	..	..	..	..	114	113	176	174
<b>Summary of Work:</b>												
1. Number of Persons on Dispensary Register on January 1st, 1925. ..	4691				10. Number of consultations with medical practitioners.							
2. Number of Patients transferred from other areas and of "lost sight of" cases returned.. ..	47				(a) At homes of applicants ..				243			
3. Number of Patients transferred to other areas and cases "lost sight of" ..	77				(b) Otherwise .. ..				100			
4. Died during the year .. ..	533				11. Number of other visits by Tuberculosis Officers to homes ..				1844			
5. Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months ..	215				12. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes. .. ..				22403			
6. Number of attendances at the Dispensary (including contacts) .. ..	25030				13. Number of							
7. Number of attendances of non-pulmonary cases at Orthopaedic Out-Stations for treatment or supervision .. ..	..				(a) Specimens of sputum, etc., examined .. ..				1792			
8. Number of attendances at General Hospitals or other Institutions approved for the purpose of patients for					(b) X-Ray examinations made in connection with Dispensary work .. ..				158			
(a) "Light" Treatment. .. ..	2569				14. Number of insured Persons on Dispensary Register on the 31st December .. ..				1649			
(b) "Other special forms of treatment .. ..	31				15. Number of Insured Persons under Domiciliary Treatment on 31st December .. ..				688			
9. Number of Patients to whom Dental treatment was given, at or in connection with the Dispensary .. ..	..				16. Number of reports received during the year in respect of Insured Persons:—							
					(a) Form G.P. 17 .. ..				96			
					(b) Form G.P. 36 .. ..				293			

The total number of persons who attended the dispensaries during the year 1925 was 6,741, as against 6,673 in 1924, and the number of attendances was 25,030 as against 23,955 in 1924.

The total number of patients visited at their homes by the tuberculosis medical officers was 2,187 as against 2,482 in 1924.

### **Aids to Diagnosis at Dispensary.**

The following methods are used as an aid to diagnosis:—

1. Sputum Examination.
2. X-Ray Examination.
3. Tuberculin Tests.
4. Observation at Dispensary while attending as Out-Patients.

There are no beds available for observation cases at any of the dispensaries, but accommodation is provided at certain of the sanatoria for this type of case when the tuberculosis officers have special difficulty in arriving at a definite conclusion.

The work at the dispensaries consisted largely of consultations in connection with the diagnosis of tuberculosis. Special methods of treatment are undertaken for certain cases who can be treated at home satisfactorily. Symptomatic treatment is not given to any extent, but tonics in the form of malt and cod liver oil are provided in needful cases.

### **Examination of Contacts.**

We should require additional tuberculosis medical officers to carry out this work completely in all cases, and therefore the efforts of the district tuberculosis medical officers are confined to the examination of contacts of open cases of lung tuberculosis.



### **Co-operation with Medical Practitioners.**

The relations between the tuberculosis staff and the doctors practising in their areas continue to be cordial. The services of the district tuberculosis officers as consultants are being more and more sought after by general practitioners, and co-operation in the dispensary work with them has worked smoothly during the year. With regard to the working of the arrangements set out in Memorandum 286, the model forms suggested by the Ministry of Health were not adopted in this county as all notifications as to treatment are sent to the general practitioners from the central office.

G.P.17 and G.P.35 were only utilised by general practitioners to a very small extent. On the other hand G.P. 36, Record of Progress Forms, were sent in fairly regularly and as a rule contained detailed information.

### **Co-operation with Local Sanitary Authorities.**

All notifications of tuberculosis and the names of all positive cases of tuberculosis coming under the dispensary organisation, whether notified or not, are forwarded to the health visitors who visit these patients at their homes. A health visitor must report to the local medical officer of health any sanitary defect she discovers in the course of her visit. If the sanitary defect is not remedied within a reasonable time the health visitor must send a report to the Superintendent Health Visitor, who refers the matter to the County Medical Officer of Health. The health visitor also sends to the medical officer of health a copy of the report of her first visit to any case of tuberculosis in her area, and she also notifies removals and deaths of any tuberculous patients.

The local medical officer of health is charged with the duty of keeping a register of all cases of tuberculosis reported in his sanitary district. The Ministry of Health now call for greater accuracy in the keeping of these registers and in addition to the information supplied by the health visitors the

tuberculosis medical officers furnish the local medical officers of health with particulars of cases which have become "cured," and cases which have been notified by practitioners in error.

The number of sanitary defects reported to local medical officers of health during 1925 was 906, but we have no record of the sanitary defects which after notification were remedied.

### **Co-operation with the Ministry of Pensions.**

During the year 429 reports on ex-service men were supplied to the Ministry of Pensions.

### **Co-operation with Poor Law Institutions—Ministry of Health Circulars 607 & 607a.**

The main object of the Ministry in sending out these circulars is to get as full and complete co-operation as possible between poor law officers and tuberculosis medical officers.

In Durham County, although no definite agreement was fixed up with the guardians our tuberculosis officers were always willing to see cases at the request of their medical officers, and the Ministry suggest that some more formal arrangement should now be put into force. In view of the fact that in a great many cases the tuberculosis officer has a personal knowledge of the medical history of the patient before admission to the institution the Minister has suggested to the board of guardians and to the local authorities that much advantage would be derived by the appointment of tuberculosis officers as consultants upon the staffs of poor law infirmaries. Several boards of guardians approached the County Council in response to these circulars and at the end of the year negotiations were in progress with these bodies in accordance with the arrangements suggested by the Ministry.

## Tuberculous School Children—Co-operation with School Medical Department.

When the School Medical Department require an opinion upon any case suspected by them to be suffering from tuberculosis, a request for his opinion is sent to the tuberculosis medical officer in charge of the dispensary for the area in which the child resides.

Whenever possible the medical attendant of the child is consulted before reference to the tuberculosis medical officer.

The following is a copy of the form used for this purpose:

### COUNTY COUNCIL OF DURHAM. EDUCATION (MEDICAL) DEPARTMENT.

To the Tuberculosis Officer

at.....Dispensary.....

I shall be glad of your opinion on:—

Name.....

Address.....

School.....Dept.....

whom I suspect to have.....

.....

.....

Please send your reply by post to me.

Signature of A.S.M.O. ....

Postal Address .....

.....

Date.....

Reply:—

In my opinion the child has.....

.....

.....

I recommend:—

(1) Exclusion from School for a period of.....

(2) Child to attend Dispensary.....

(3) Sanatorium Treatment. ....

(4) .....

Signature of T.M.O.

Date.....

Noted and forwarded to the School Medical Officer.

Date.....

.....

Assistant School Medical Officer.



The number of cases referred to the dispensaries by the assistant school medical officers during 1925 was as follows:—

Boys .....	58
Girls .....	64
	<hr/>
Total...	122
	<hr/>

### **Provision of Surgical Appliances.**

As in former years Messrs. Brady & Martin, Surgical Instrument Makers, Newcastle-on-Tyne, have supplied surgical appliances on the recommendation of our tuberculosis officers.

During the year 16 spinal cases were fitted with various appliances mostly of the special kinds of spinal brace. Poroplastic jackets, so often ordered formerly, are rarely used now owing to the fact that they do harm by enclosing the thorax. Thirteen joint cases were supplied with various special splints. Of these seven were hip joint affections, four were knee joints, and two were diseases of the arm.

Practically all the cases requiring splints for the hip also needed crutches and pattens.

In addition to the above, fourteen deformity cases were sent to be fitted with surgical boots and supports of various kinds. In my opinion in every case dealt with by providing these appliances, satisfactory assistance has been given to the patients.

### **Vocational Training of Tuberculous Ex-Service Men.**

The last of these courses established in 1922 at certain sanatoria was terminated during the past summer, and the following information as to the after histories of the nine men who completed their course of training satisfactorily has been obtained:—

One man is at present employed in market gardening.

Two are tinsmiths.

One does house repairs, and

Two others are furniture repairers.

One man who was trained as a furniture repairer, and another who received instruction in house repairs are unemployed.

In one case where a man was trained in market gardening he has not been able to obtain work in this occupation and is now doing light work at a colliery.

The men were trained at the following centres:—

Preston Hall, Aylesford, Kent.....	1
Burrow Hill, Frimley, Surrey.....	1
West Heath, Birmingham.....	2
Hollywood Hall Sanatorium, Wolsingham	5

Visits paid to tuberculous ex-service men numbered 1,014, the corresponding figure for 1924 being 1,730.

The total number of tuberculous persons under supervision on the 31st December was 5,857, and of these 723 were tuberculous ex-service men.

### **Institutional Treatment of Tuberculous Ex-Service Men.**

During the year 1925, 119 ex-service men were admitted to sanatoria or hospitals, and 131 discharged. On the 31st December, 1925, 54 were receiving in-patient treatment.

### **Home Nursing of Consumptives.**

Grants are made by the County Council through the County Nursing Association to the following affiliated district nursing associations in connection with the home nursing of tuberculous patients:—

Annfield Plain, Burnhope Colliery, Bishop Auckland, Castle Eden, Craghead, Easington, Ferryhill, Gainford, Greenside, Hurworth & Neasham, Middleton St. George, Usworth, West Auckland, Willington and Wolsingham.

In addition, the Darlington Queen's Nursing Association and the Stockton & Thornaby Nursing Association undertake nursing when required by the tuberculosis medical officer at a cost of 10d. per visit.

The number of visits paid by the district nurses during the year was 3,736.

### **Dental Treatment.**

Expenditure in this connection is limited to £100 per annum. During the year a certain amount of dental treatment was provided at institutions for patients in poor financial circumstances.

### **Sleeping Shelters.**

At the end of 1924, 96 shelters were in use and 9 were awaiting removal. During the year 36 were removed from patients who had no further use for them and were erected for new patients.

The total number of shelters available on the 31st December, 1925, was 105, and these were distributed as follows:—

#### **NORTHERN DISTRICT:—**

Ryton, High Spen, Rowlands Gill, Winlaton..... 4

#### **NORTH-EASTERN DISTRICT:—**

Jarrow (2), Hebburn (2), Springwell (2), Washington Station (2), Washington ..... 9

#### **NORTH-WESTERN DISTRICT:—**

Consett (2), Stanley (2), Hedley Hill, Medomsley 6

#### **WESTERN DISTRICT:—**

Bishop Auckland (6), Coundon (2), Broom (2), Shildon (3), Spennymoor (2), Cockfield (2), Tottenham, Chilton, Crook, Middlestone Moor, Oakenshaw, Killhope, Stanley, Nr. Crook, Auckland Park, Tow Law, Willington, Westgate-in-Weardale ..... 28

#### **CENTRAL DISTRICT:—**

Durham (2), Brandon (2), Team Colliery, Birtley, New Brancepeth, Waterhouses, Esh Winning, Browney Colliery, Fence Houses, Meadowfield... 12



## SOUTHERN DISTRICT:—

Darlington (8), Croft Spa (2), Sadberge, Staindrop,  
Coatham Mundeville, Barnard Castle, Middleton  
St. George, Newbiggin, Middleton-in-Teesdale,  
Stockton (6), Billingham (2), Wolviston, Sedge-  
field, Winston Village ..... 28

## EASTERN DISTRICT:—

New Seaham (2), Dawdon (2), Easington Village,  
New Herrington, West Herrington, Murton,  
Horden Colliery, Shotton, Coxgreen, Ryhope..... 12

---

Total in use 31st December, 1925..... 99

Awaiting removal 31st December, 1925... 6

---

Total available...105

---

**The following is a Summary of the Occupations of Patients  
admitted to Holywood Hall during the Year 1925.**

Miners, 174; Labourers, 49; Clerks, 7; Mechanics, 6;  
Blacksmiths, 5; Masons, 5; Coke Oven Workers, 3; Platers,  
3; Steel Dressers, 3; Sheet Iron Workers, 3; Electricians, 3;  
Motor Drivers, 3; Joiners, 3; Butchers, 3; Others, 61.  
Remainder of no occupation and schoolboys.

This table shows that of these cases 44.6% were miners.  
Next in order come labourers representing 12.5%, 1.7% were  
clerks, 1.5 % were mechanics, and 1.3% were stone masons and  
blacksmiths respectively.

It is interesting to note that no workers in the refractories  
industries were admitted during the year. This rather bears  
out what I (Dr Macrae) said on a previous occasion that in  
the County of Durham all work in these industries is carried  
out under favourable hygienic conditions. It is probable,  
therefore, that the silica dust generated in grinding, etc., in  
their work does not become impregnated with the tubercle  
bacillus. In the silica trade workers employed in mining

stone containing 80% or more of silica are the most liable to contract silicosis. In Durham County, however, most of the stone is obtained by open quarrying, and mining is carried out to a limited extent only.

### **Care and After-Care.**

A complete and comprehensive Care Scheme is now in force for the whole of the administrative county.

The scheme deals with an urban population of 478,937, and a rural population of 392,949 (1921 Census).

The work is carried out by a County Committee and 7 District Committees. The County Committee consists of representatives of the County Health and the County Insurance Committees (3 each), the County Nursing Association and District Care Committees (1 each), together with the County Medical Officer, Chief Tuberculosis Officer, Clerks to the County Council and Insurance Committee, and the Secretary of the County Nursing Association, as ex-officio members. The Honorary Secretary of the County Committee is Mr. Edwin Potts, O.B.E., B.Litt., F.F.I., Clerk of the County Insurance Committee.

The District Care Committees include, in addition to not more than 6 co-opted members, representatives appointed by the following bodies:—

County Council (5), Insurance Committee (3), Borough and Urban District Councils, Rural District Councils, Boards of Guardians, Local Medical and Panel Committees, Local Friendly and Approved Societies, Industrial Assurance Approved Societies, Local Pensions Committees, Chambers of Trade, Co-operative Industrial Societies, Trades and Labour Councils, Trades Union Approved Societies, Employers of Labour, Employment Exchanges, Voluntary Bodies, and district medical officers of health act as ex-officio members.

The County Committee meets quarterly, and the District Committees monthly. The District Care Committees report to the County Committee and the County Committee reports

to the County Health Committee. The Secretaries of the District Care Committees are paid by the County Council, which also bears all administrative costs. During 1925 the total cost of administration was about £300.

The chief functions of these District Committees are:—

- (1) Assisting the County Council in providing extra nourishment.
- (2) Assisting patients to obtain suitable employment and endeavouring to improve the living conditions of patients and their dependents.
- (3) Providing clothing to needy patients recommended for institutional treatment.
- (4) Assisting patients to obtain better housing accommodation where the living conditions are bad and contacts are exposed to mass infection.

The district tuberculosis medical officers attend the meetings of all district care committees to advise as to the medical requirements of the cases.

The following is a summary of work done by these committees during 1925:—

Extra nourishment supplied to.....	539	cases.
Clothing and boots supplied to.....	159	„
Dental Treatment secured for.....	7	„
Appliances supplied to .....	6	„
Employment secured for.....	6	„
Housing accommodation secured for...	12	„
Financial assistance rendered to.....	4	„
Referred to Guardians & other bodies	62	„

One committee has made arrangements for the supply of Grade “A” milk. The same committee has formed a ladies’ sewing party to make clothing for necessitous cases entering sanatoria,



The monthly meetings of these committees have been well attended and the members take a keen interest in the work. They are undoubtedly of real assistance to the tuberculosis medical officers.

The greatest difficulties with which the committees have to deal are:—(1) Obtaining suitable employment, and (2) Securing adequate housing and alleviating overcrowding.

Contributions to the funds of the care committees have been received from boards of guardians, friendly societies and from private subscriptions. The proceeds of several concerts and entertainments organised by local effort in the various districts have also been handed to the committees. In order to prevent overlapping all the former powers whereby the County Council supplied extra nourishment have now been transferred to the care committees. This arrangement works smoothly and satisfactorily. The County Council contribution, which is paid to the County Care Committee through the Hon. Treasurer, Col. D. F. Todd, M.D., is equivalent to £2,000, i.e., £2 per thousand of the population or such less amount as may be certified to have been expended by the care committees on extra nourishment in accordance with the regulations.

### **Notification of Tuberculous Cases.**

Under the Public Health (Tuberculosis) Regulations of 1912, it is the statutory duty of every medical practitioner to notify within 48 hours, to the local medical officer of health, any case of tuberculosis occurring in his practice.

The number of notifications received on Forms "A" and "B" by the County Medical Officer of Health for the year 1925 was 2,598, of which 191 were from the County Borough of Darlington,

Table 40.

	Pulmonary.	Non-Pulmonary.	Total.
Males .....	793	559	1352
Females .....	736	510	1246
Totals .....	1,529	1,069	2,598

The County Council provide treatment for tuberculous patients resident in the County Borough of Darlington.

Table 41.

Summary of Notifications during the period from the 1st January, 1925, to the 1st January, 1926, in the County of Durham.

Age Periods.	Notifications on Form A.												Total Notifi- cations on Form A,
	Number of Primary Notifications.												
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and Upwards	Total Pri- mary Noti- fications.	
Pulmonary Males .....	3	43	73	79	112	97	153	108	79	31	3	781	860
„ Females...	4	21	82	78	89	114	184	86	46	16	4	724	785
Non-Pulmonary Males	12	111	120	82	83	35	36	18	9	5	4	515	576
„ Females	9	115	85	97	58	41	37	19	8	4	4	477	532

Age Periods,	Notifications on Form B.				
	Number of Primary Notifications.				Total Notifications on Form B.
	Under 5	5 to 10	10 to 15	Total Primary Notifications.	
Pulmonary Males .....	...	6	6	12	13
Females .....	...	7	5	12	12
Non-Pulmonary Males...	1	26	17	44	45
Females...	1	12	20	33	33

Table 42.

Statement of Notifications of Tuberculosis in the different  
Urban and Rural districts in the County for the  
Year ended 31st December, 1925.

DISTRICT.	Notifications Form A. (Primary)		DISTRICTS.	Notifications. Form A. (Primary)	
	Pulmon- ary.	Non-Pul- monary.		Pulmon- ary.	Non-Pul- monary.
1	2	3	1	2	3
URBAN.			RURAL.		
Darlington Borough...	127	54	Auckland .....	55	22
Durham „ ...	23	11	Barnard Castle .....	7	3
Hartlepool „ ...	29	19	Chester-le-Street.....	96	85
Jarrow „ ...	160	93	Darlington .....	4	...
Stockton „ ...	80	48	Durham .....	39	14
Annfield Plain .....	10	13	Easington .....	101	97
Barnard Castle .....	...	1	Hartlepool .....	6	2
Benfieldside .....	20	7	Houghton-le-Spring	46	42
Billingham .. ...	5	5	Lanchester .....	42	25
Bishop Auckland .....	17	9	Sedgefield .....	88	30
Blaydon .....	39	35	South Shields .....	27	18
Brandon & Byshottles	27	10	Stockton .....	4	2
Chester-le-Street .....	17	22	Sunderland .....	35	38
Consett .....	23	7	Weardale .....	14	17
Crook .....	14	13			
Felling .....	41	49			
Hebburn.....	50	36			
Hetton-le-Hole .....	36	37			
Houghton-le-Spring...	14	29			
Leadgate .....	7	5			
Ryton .....	6	4			
Seaham Harbour .....	30	15			
Sildon .....	21	14			
Southwick-on-Wear ...	29	26			
Spennymoor .....	37	11			
Stanhope .....	3	...			
Stanley .....	36	28			
Tanfield .....	13	9			
Tow Law.....	2	1			
Washington .....	20	13			
Whickham .....	40	14			
Willington .....	5	8			
Totals.....	981	646	Totals .....	564	395

N.B.—The figures in the above table include 89 cases who were dead  
at the time of notification.



### Deaths.

The number of deaths in the administrative county from all forms of tuberculosis during 1925 was 1,263, viz., 937 pulmonary and 326 non-pulmonary.

The number of deaths during each of the preceding four years has been as follows:—

**Table 43.**

	Pulmonary.	Non-Pulmonary.	Total.
1921	918	285	1203
1922	915	296	1211
1923	836	327	1163
1924	842	289	1131

In the following statement the death-rates from phthisis in the boroughs and the urban and rural districts of this county are compared:—

**Table 44.**

Rate per 1,000 Living.	1921.	1922.	1923.	1924.	1925.
Boroughs .. .. .	1·37	1·14	0·90	1·21	1·23
Other Urban Districts...	1·03	0·89	0·89	0·86	0·86
Rural Districts.....	0·77	0·75	0·80	0·73	0·83
Administrative County...	0·96	0·87	0·86	0·85	0·88
England and Wales...	0·88	0·89	0·84	0·84	0·83

Table 45.

The following Table shows the Ages at Death and the District in which they occurred.

DISTRICT.	Deaths from Pulmonary Tuberculosis at Subjoined Ages.								
	Under 1 year.	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards	TOTALS
URBAN.									
Darlington.....	..	..	..	5	13	24	16	..	58
Durham.....	..	..	..	2	2	3	8	1	16
Hartlepool.....	..	..	..	3	5	9	5	..	22
Jarrow.....	..	2	6	7	21	24	16	1	77
Stockton.....	..	..	3	5	15	27	10	2	62
Annfield Plain.....	..	..	..	..	4	4	2	..	10
Barnard Castle.....	..	..	..	..	1	1	..	..	2
Benfieldside.....	..	..	..	..	2	5	..	..	7
Billingham .....	1	..	..	..	..	2	..	..	3
Bishop Auckland.....	..	..	..	..	3	5	3	..	11
Blaydon.....	..	..	1	2	8	11	8	..	30
Brandon & Byshottles...	..	..	..	..	3	8	1	..	12
Chester-le-Street.....	..	..	..	..	3	2	3	..	8
Consett.....	..	..	..	1	1	4	3	..	9
Crook.....	..	1	..	..	3	4	4	1	13
Felling.....	..	..	..	3	16	6	6	..	31
Hebburn.....	..	2	..	1	5	14	8	..	30
Hetton-le-Hole.....	..	..	..	4	5	9	4	..	22
Houghton-le-Spring.....	1	..	1	2	1	4	2	..	11
Leadgate.....	..	..	..	..	..	1	..	..	1
Ryton.....	..	..	..	..	..	3	1	..	4
Seaham Harbour.....	1	..	1	..	6	7	3	..	18
Sildon.....	..	..	..	1	..	4	4	..	9
Southwick-on-Wear.....	..	..	1	5	8	5	1	..	20
Spennymoor.....	..	..	..	2	4	7	4	..	17
Stanhope.....	..	..	..	..	..	2	..	..	2
Stanley.....	..	1	1	1	9	4	6	..	22
Tanfield.....	..	..	..	..	1	8	2	..	11
Tow Law.....	..	..	..	2	1	..	..	..	3
Washington.....	..	..	1	..	4	7	5	..	17
Whickham.....	..	..	..	1	6	17	6	1	31
Willington.....	..	..	..	2	2	2	..	..	6
Totals.....	3	6	15	49	152	233	131	6	595
RURAL.									
Auckland.....	..	..	1	2	14	13	8	..	38
Barnard Castle.....	..	..	..	1	2	1	4	..	8
Chester-le-Street.....	..	1	1	8	14	13	7	1	45
Darlington.....	..	..	..	..	2	4	2	..	8
Durham.....	1	..	..	1	9	12	3	1	27
Easington.....	1	..	..	4	16	25	14	..	60
Hartlepool.....	..	..	1	..	..	2	1	..	4
Houghton .....	1	..	..	6	13	7	1	1	29
Lanchester.....	..	2	..	..	12	7	3	1	25
Sedgefield.....	..	..	2	2	14	14	5	..	37
South Shields.....	..	..	..	3	6	8	2	..	19
Stockton.....	..	..	..	..	..	4	1	1	6
Sunderland.....	1	..	..	3	5	15	1	..	25
Weardale.....	..	..	..	..	..	5	5	1	11
Totals.....	4	3	5	30	107	130	57	6	342
Administrative County.	7	9	20	79	259	363	188	12	937

Table 46.

The following Table shows the Ages at Death and the District in which they occurred.

DISTRICT.	Deaths from Non-Pulmonary Tuberculosis at Subjoined Ages.							
	Under 1 year.	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards
<b>URBAN.</b>								
Darlington.....	2	2	2	9	3	3	3	24
Durham.....	..	1	5	..	..	1	..	7
Hartlepool.....	..	..	..	1	..	1	..	2
Jarrow.....	3	5	1	6	4	2	..	21
Stockton.....	..	2	3	4	6	4	1	20
Annfield Plain.....	1	1	..	1	..	..	..	3
Barnard Castle.....	..	..	..	..	..	1	..	1
Benfieldside.....	1	1	..	..	1	..	..	3
Billingham .....	..	1	..	..	3	..	..	4
Bishop Auckland.....	..	..	1	..	3	..	..	4
Blaydon.....	1	1	3	1	..	1	..	7
Brandon & Byshottles...	..	..	..	1	..	..	..	1
Chester-le-Street.....	..	..	2	2	1	..	2	7
Consett.....	..	..	..	..	..	1	..	1
Crook.....	..	..	..	..	..	..	1	1
Felling.....	2	2	2	4	3	2	..	15
Hebburn.....	3	1	..	6	1	..	1	12
Hetton-le-Hole.....	2	3	2	1	1	1	..	10
Houghton-le-Spring.....	1	..	..	1	..	..	..	2
Leadgate.....	..	..	2	..	1	..	..	3
Ryton.....	..	..	..	3	..	1	..	4
Seaham Harbour.....	1	3	..	2	..	1	..	7
Shildon.....	..	..	..	2	2	..	..	4
Southwick-on-Wear.....	2	1	3	1	3	1	..	11
Spennymoor.....	1	1	..	1	2	1	1	7
Stanhope.....	..	..	..	..	..	..	..	..
Stanley.....	..	1	3	..	..	..	..	4
Tanfield.....	1	..	..	1	..	..	..	2
Tow Law.....	..	..	..	..	..	..	..	..
Washington.....	..	1	1	3	1	..	..	6
Whickham.....	..	..	..	5	..	..	1	6
Willington.....	..	..	1	2	..	..	..	3
Totals.....	21	27	31	57	35	21	8	202
<b>RURAL.</b>								
Auckland.....	..	2	2	4	..	4	2	14
Barnard Castle.....	..	..	..	..	1	..	..	1
Chester-le-Street.....	4	..	2	2	4	..	2	14
Darlington.....	1	..	1	..	..	1	..	3
Durham.....	..	3	1	..	1	1	..	6
Easington.....	5	4	5	3	2	3	..	22
Hartlepool.....	..	..	..	..	..	..	..	..
Houghton .....	..	1	5	3	4	..	..	13
Lanchester.....	..	1	2	1	5	4	1	14
Sedgefield.....	3	2	2	1	1	1	2	12
South Shields.....	..	3	..	3	1	2	..	10
Stockton.....	..	..	..	1	1	..	..	2
Sunderland.....	1	1	1	5	1	..	..	10
Weardale.....	..	..	1	..	..	1	..	3
Totals.....	14	17	22	23	21	17	7	124
Administrative County..	35	44	53	80	56	38	15	326



The mortality-rates for the five years ended 31st December, 1925, based on sex distribution, are shown in the following table:—

Table 47.

Year.	Estimated Population of Administrative County.		Death-rate per 1,000 of Population according to sex.					
			Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Tuberculosis (all forms).	
	Males.	Females.	M.	F.	M.	F.	M.	F.
1921	484,700	470,700	0·48	0·47	0·18	0·15	0·66	0·62
1922	488,413	475,338	0·39	0·43	0·19	0·17	0·59	0·59
1923	492,126	479,976	0·41	0·40	0·21	0·18	0·62	0·58
1924	495,839	484,614	0·42	0·40	0·19	0·16	0·61	0·56
1925	499,552	489,252	0·41	0·41	0·19	0·18	0·60	0·59

In spite of the bad economic conditions of the county during 1925, and although large numbers of the people are still badly housed, yet there was no set back to the death-rate.

#### New Cases and Mortality during 1925.

Table 48.

Age Period.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0.....	4	1	7	3	2	...	1	2
1.....	34	23	83	82	4	5	10	8
5.....	81	75	93	85	3	7	3	...
10.....	69	71	64	67	1	7	3	2
15.....	87	63	56	55	22	23	2	5
20.....	77	85	29	30	25	35	3	1
25.....	97	120	19	27	25	42	2	1
35.....	82	57	13	18	27	21	2	...
45.....	47	24	1	10	17	6	...	...
55.....	19	7	2	2	4	1	...	...
65 and upwards .....	2	...	...	2	...	...	...	1
Totals .....	599	526	367	381	130	147	26	20

## VENEREAL DISEASES.

Speaking generally, the facilities provided by the County Council for the treatment of county patients suffering from venereal diseases were not varied during 1925. An item of importance during the year was the conclusion of an agreement between the County Council and the Committee of the Stockton and Thornaby Hospital for the erection of a new up-to-date clinic in accordance with plans approved by the Minister of Health, in the grounds of the hospital. Under the agreement the Hospital Committee are erecting a clinic which will be entirely at the disposal of the County Council as a venereal diseases centre for a period of twelve years, subsequent tenure to be subject to six months' notice on either side. The County Council will pay a rental at the rate of  $12\frac{1}{2}\%$  for seven years on a capital outlay calculated on a sum not exceeding £3,150, and for a subsequent five years at the rate of  $7\frac{1}{2}\%$  on the same capital expenditure; all rates, taxes, etc., to be paid by the Hospital Committee, which will also be responsible for keeping the outside of the premises in proper repair. The County Council will keep the interior of the clinic in good repair, and other details as regards heating, lighting, water supply, laundry work, and the provision of nurses, are to be in accordance with the agreement. It is hoped that the building will be completed and ready for use as a clinic in the latter half of 1926, and I have reason to believe that it will prove to be one of the most satisfactory and up-to-date clinics in the country.

The following report has been prepared for me by Dr. McIntyre, the County Clinical Medical Officer, and the charts in respect of the Durham clinic, which accompany it, are specially interesting.

## VENEREAL DISEASES.

The facilities provided by the County Council for the treatment of patients suffering from venereal diseases are:—

	Males.	Females.
Royal Infirmary, Newcastle.	Tues, Thurs. & Sat., 8-30 a.m. Wed., & Fri., 3-30 p.m. Tues., 6-0 p.m.	Mon., Wed. & Fri., 8-30 a.m., Mon., 3-30 p.m. Thurs., 6-0 p.m.
Male and Female irrigation daily.		
Royal Infirmary, Sunderland.	Thurs. & Sat., 10 a.m. Fri., 2-30 p.m. Mon., 6 p.m.	Tues., 10 a.m. Fri., 11 a.m. Ante- natal. Wed., 2-30 p.m.
Male and Female irrigation daily.		
County Hospital, Durham.	Mon. & Thurs., 5-30 p.m. Thurs., 11 a.m.	Mon. & Thurs., 2-30 p.m.
Male and Female irrigation daily.		
Stockton and Thornaby Hospital, Stockton-on-Tees.	Tues., & Fri., 6 p.m.	Fri., 2-30 p.m.
Male and Female irrigations daily.		

The attendances of county patients for the years 1924 and 1925 were:—

### NEW CASES.

	1925.	1924.
Syphilis .....	395	404
Soft Sores .....	13	18
Gonorrhœa .....	671	574
Non-Venereal .....	438	347
Total .....	1,517	1,343



## AGGREGATE NUMBER OF IN-PATIENT DAYS.

	1925.	1924.
Durham .....	332	391
Newcastle .....	302	262
Stockton .....	Nil.	83
Sunderland .....	181	430
	<hr/>	<hr/>
Total .....	815	1,166
	<hr/>	<hr/>

## TOTAL ATTENDANCES.

	1925.	1924.
*Bishop Auckland .....	1,243	1,380
Durham .....	10,984	10,582
Newcastle .....	8,019	7,850
Stockton .....	3,197	2,971
Sunderland .....	10,650	6,990
	<hr/>	<hr/>
Total .....	34,093	29,773
	<hr/>	<hr/>

\*This clinic was closed on 30th September, 1925, as the Guardians, from whom the premises were rented, required the accommodation for Poor Law purposes.

CLINICS.—The new clinic which is being erected in the grounds of the Stockton and Thornaby Hospital will prove an up-to-date treatment centre.

Arrangements have been made by the County Council for the treatment of venereal diseases with the authorities of the

1. Royal Victoria Infirmary, Newcastle-on-Tyne.
2. Royal Infirmary, Sunderland.
3. The County Hospital, Durham.
4. Stockton and Thornaby Hospital, Stockton-on-Tees.

The clinics at Newcastle and Sunderland are under the control of the respective Infirmarys. Each forms part of the out-patient departments and is staffed by the consultant specialists of these departments.

Sir Robert Bolam and a competent staff are in charge of the large Skin Clinic which does this work in Newcastle, whilst Dr. N. Rowstron and staff carry out similar duties in the corresponding department of the Sunderland Infirmary.

At Durham the clinic is housed in a separate building in the Hospital grounds and is entirely maintained and staffed by the County Council.

The clinic at Stockton is temporarily away from the Hospital, but when the new clinic is completed the arrangements will be similar to those existing at Durham.

Provision for treatment is made in the county boroughs of Darlington, South Shields, and West Hartlepool, and payment is made on an attendance basis for county patients.

Travelling expenses are paid in necessitous cases to enable patients to attend the clinics at an approximate cost of £210 per annum.

Two densely populated districts in the county, viz., Bishop Auckland area and Consett area, are without near accommodation. What has proved up to the present an insuperable difficulty is the absence of a hospital in connection with which facilities could be provided. With these exceptions the clinic accommodation in the county is sufficient.

The rural areas, especially those where the population is sparse, and does not approach urban conditions, present a special problem and could best be met by the payment of an adequate fee by the authority to competent medical practitioners to treat patients at home. Where the patient lives a long way from the clinic a day's work is lost by each attendance, which is prohibitive in the case of males. With women patients in the smaller villages a regular periodic visit to the town gives rise to much gossip, and where there are children these cannot be left for the whole day.

The medical practitioners in the county are sending cases in increasing numbers to the clinics, both for diagnosis in doubtful cases and for treatment. The medical officers of the Education, Tuberculosis, and Child Welfare Departments work in co-operation with the clinics, sending patients and exchanging reports.

It would be an advantage if the services of the Venereal Diseases Specialist Medical Officer could be made available for the child welfare centres, as in spite of special ante-natal sessions it is difficult to persuade these patients to attend regularly at a venereal diseases clinic.

A time-table giving particulars of the sessions at the various clinics is periodically sent to all medical practitioners and midwives. This information has also been posted in the public conveniences of the county. A revised list is in course of preparation which will be sent to all chemists in addition to the above.

There are twenty-six medical practitioners on my list qualified to receive free supplies of arsenobenzol compounds, but this list is by no means complete as the younger practitioners have received adequate instruction in the technique of venereal diseases treatment in the course of their medical curriculum and are competent to give intra venous medication.

The number of cases for which arsenobenzol compounds have been supplied free to practitioners are becoming fewer as the treatment centres are becoming more appreciated both by doctors and patients.

The number of cases treated at home for the five-year period in respect of which arsenobenzol compounds were supplied was:—

1921	.....	4 cases.
1922	.....	5 „
1923	.....	5 „
1924	.....	1 case.
1925	.....	1 „

attended by eight practitioners.



Until 1921 treatment at the County Hospital, Durham, was given in the Out-Patient department, where the accommodation was quite inadequate and inconvenient. Arrangements were made with the Hospital authorities for the erection of a special department for venereal patients in the Hospital grounds, and a well-equipped clinic was established early in 1922, with facilities for male and female irrigations, dressings, etc., daily. In January, 1921, Dr. J. McIntyre was appointed the first whole-time Clinical Venereal Diseases Medical Officer, and was given charge of this clinic and that at Stockton. The work of these clinics was re-organized and more facilities for treatment were made possible. The advantages gained are graphically set out in the following charts, which refer to the Durham treatment centre only where, on account of the better accommodation provided, the re-organization was the more complete.

The first year of the re-organization shows a huge increase in the usefulness of the clinic, which remains firmly established.

Chart I. shows an increase in the total attendances from 6,250 to 10,200 in one year.

Charts II. and III. show the numbers attending the clinic for intermediate treatment, that is for irrigations, dressings, etc., by the orderly and nurse on the days between the medical sessions.

Investigation of the causes of the drop in the attendances of female patients for 1925, shown on Chart III., shows that the following factors were influencing the attendance:—

- (1) The number of acute gonorrhœa patients sent for treatment in the early stages of the disease was greater than in any previous year. The progress of such is much more rapid than in the chronic infections and the final total attendance per patient is reduced.

Chart I.  
TOTAL ATTENDANCES  
(with Sub-division into Male and Female).

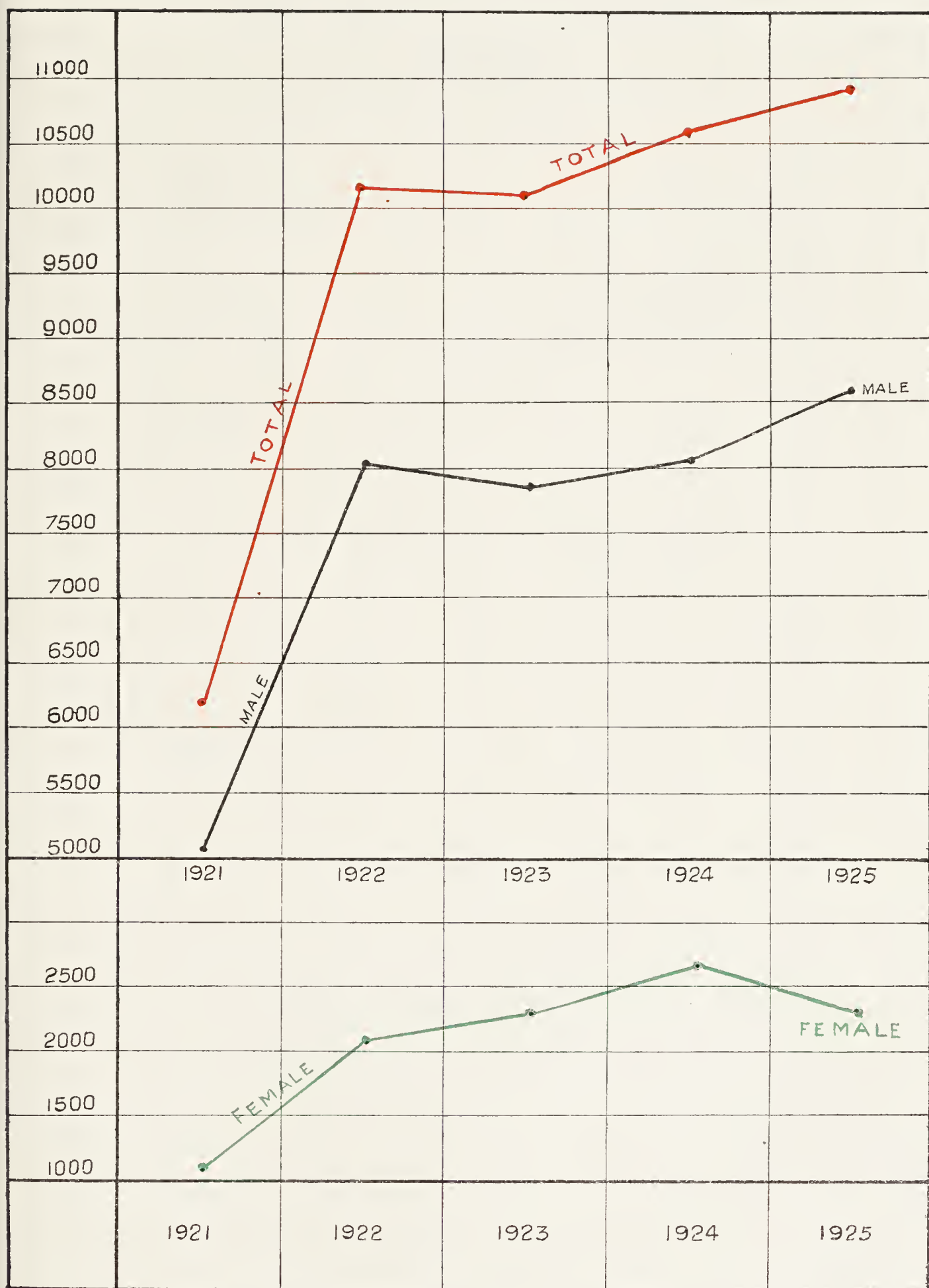






Chart II.  
Total Attendances for Intermediate  
Treatment.

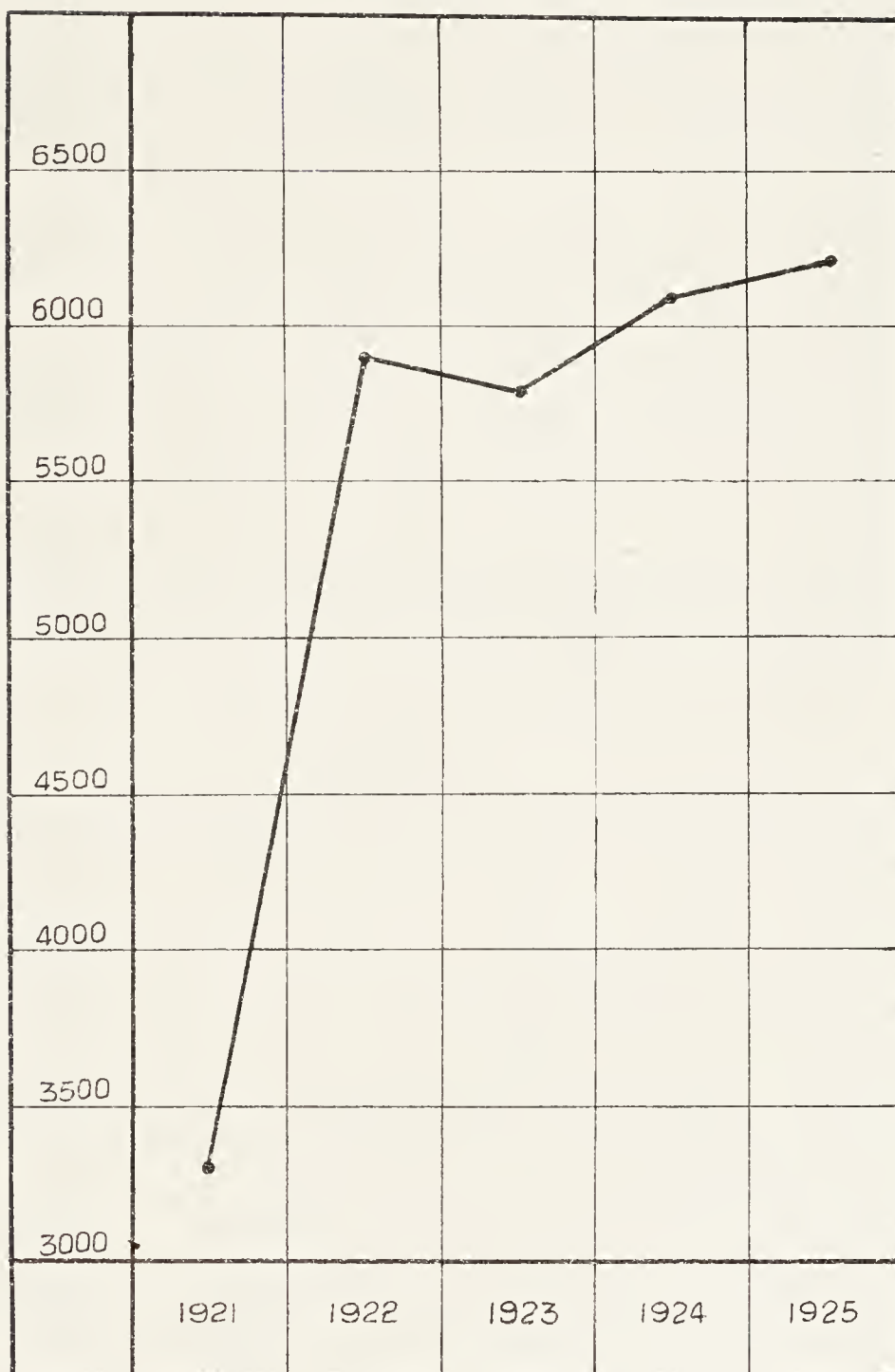
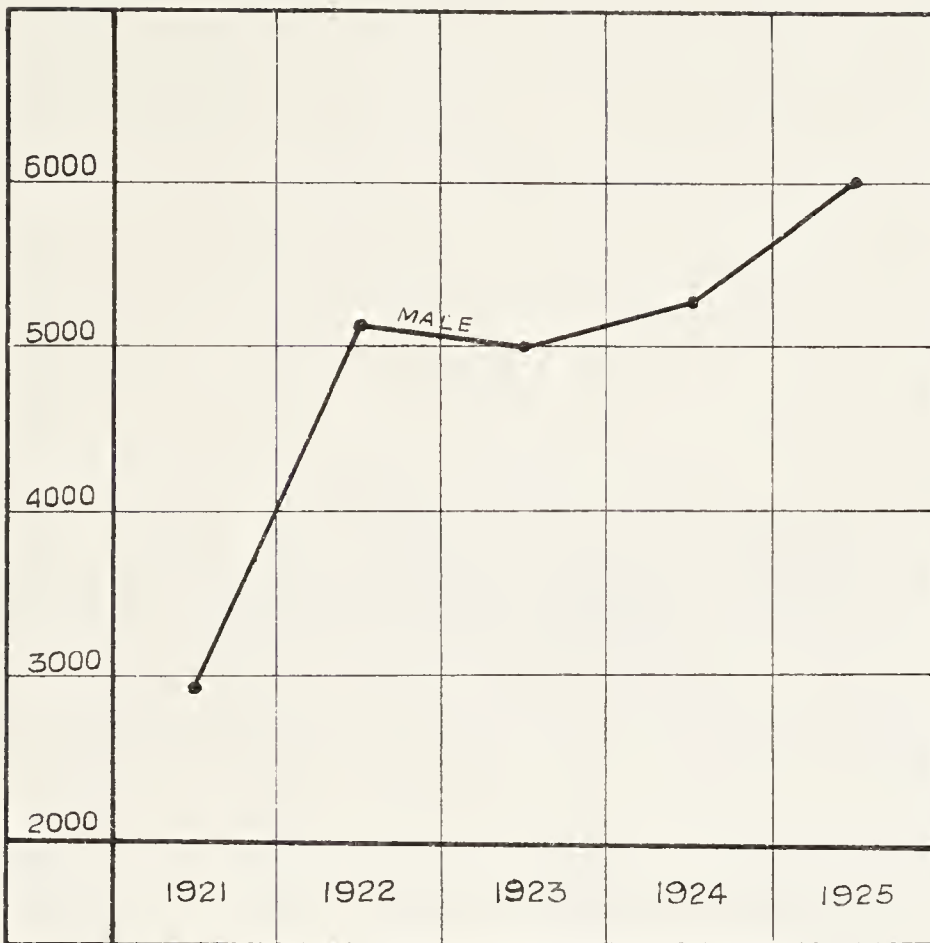




Chart III.  
Male and Female Attendances for  
Intermediate Treatment.

MALE.



FEMALE.

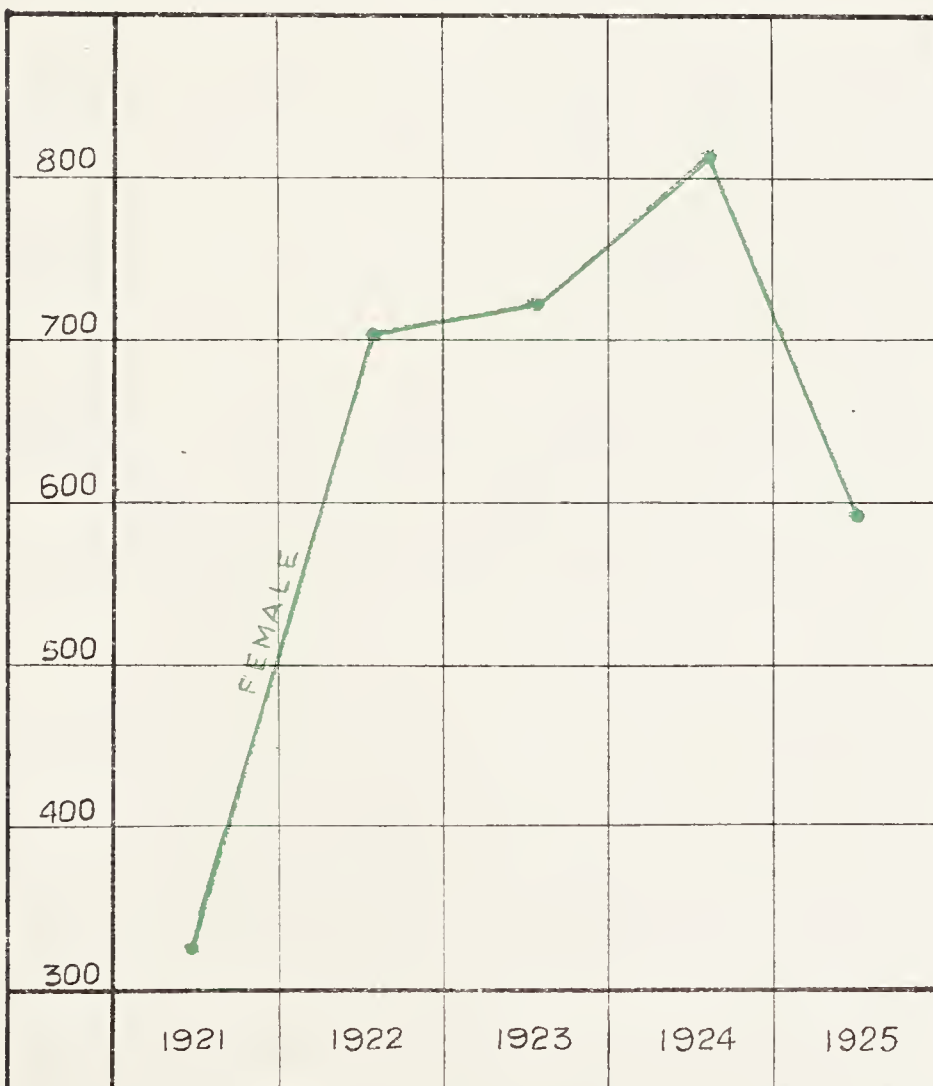






Chart IV.  
Total Number of New Patients suffering  
from Venereal Diseases.

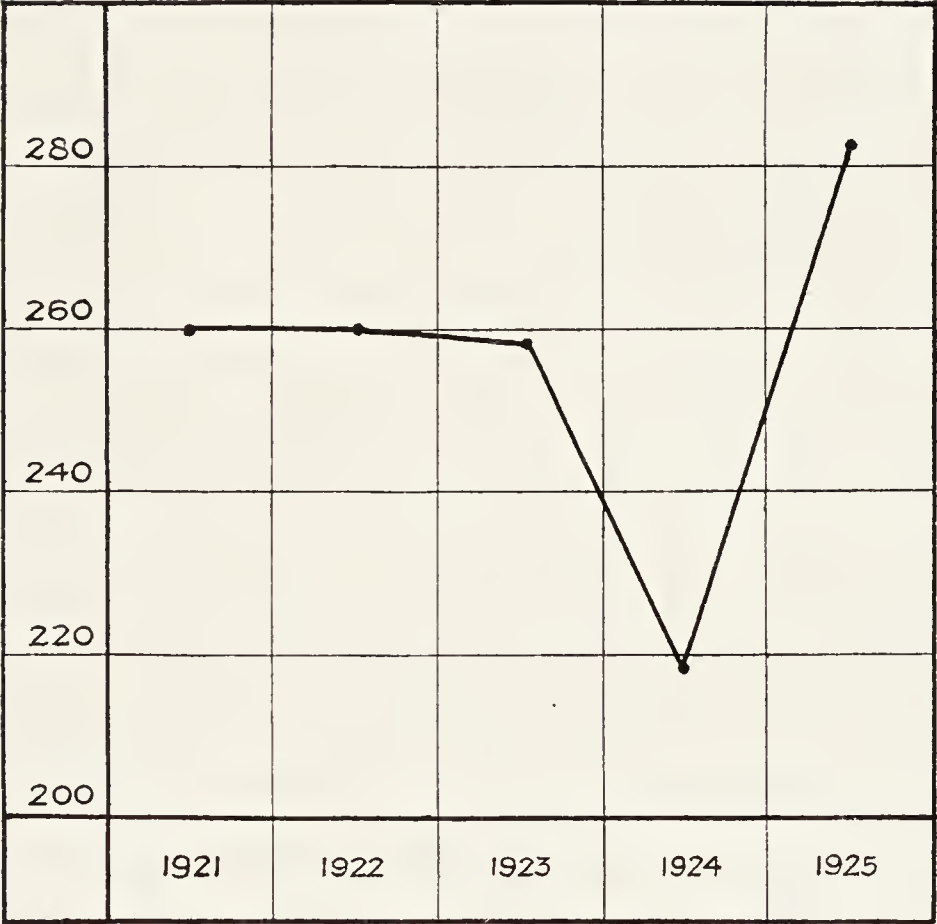






Chart V.  
Total New Venereal Diseases Patients  
Divided into Male and Female.

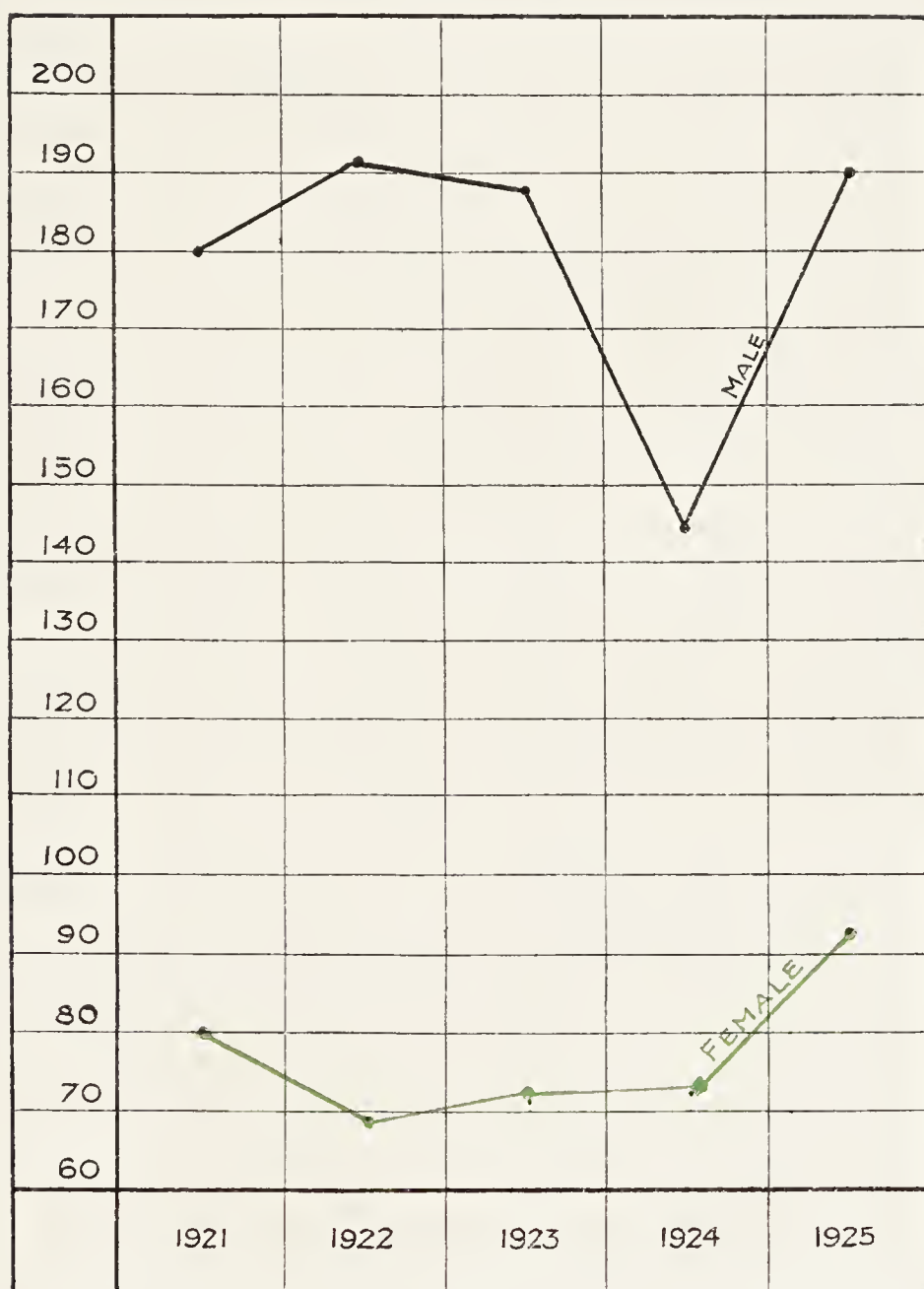




Chart VI.  
Total Number of New Syphilis Patients.

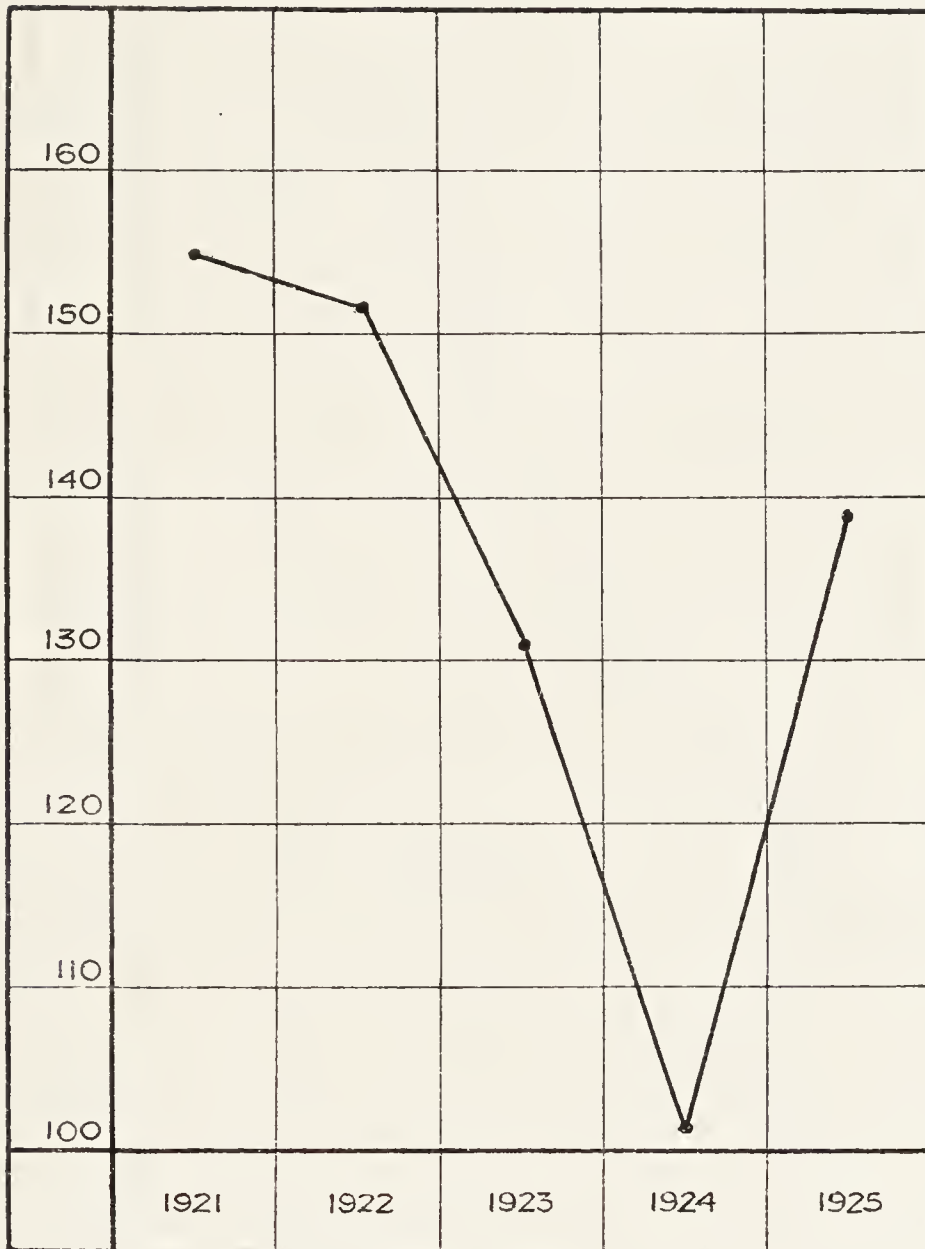
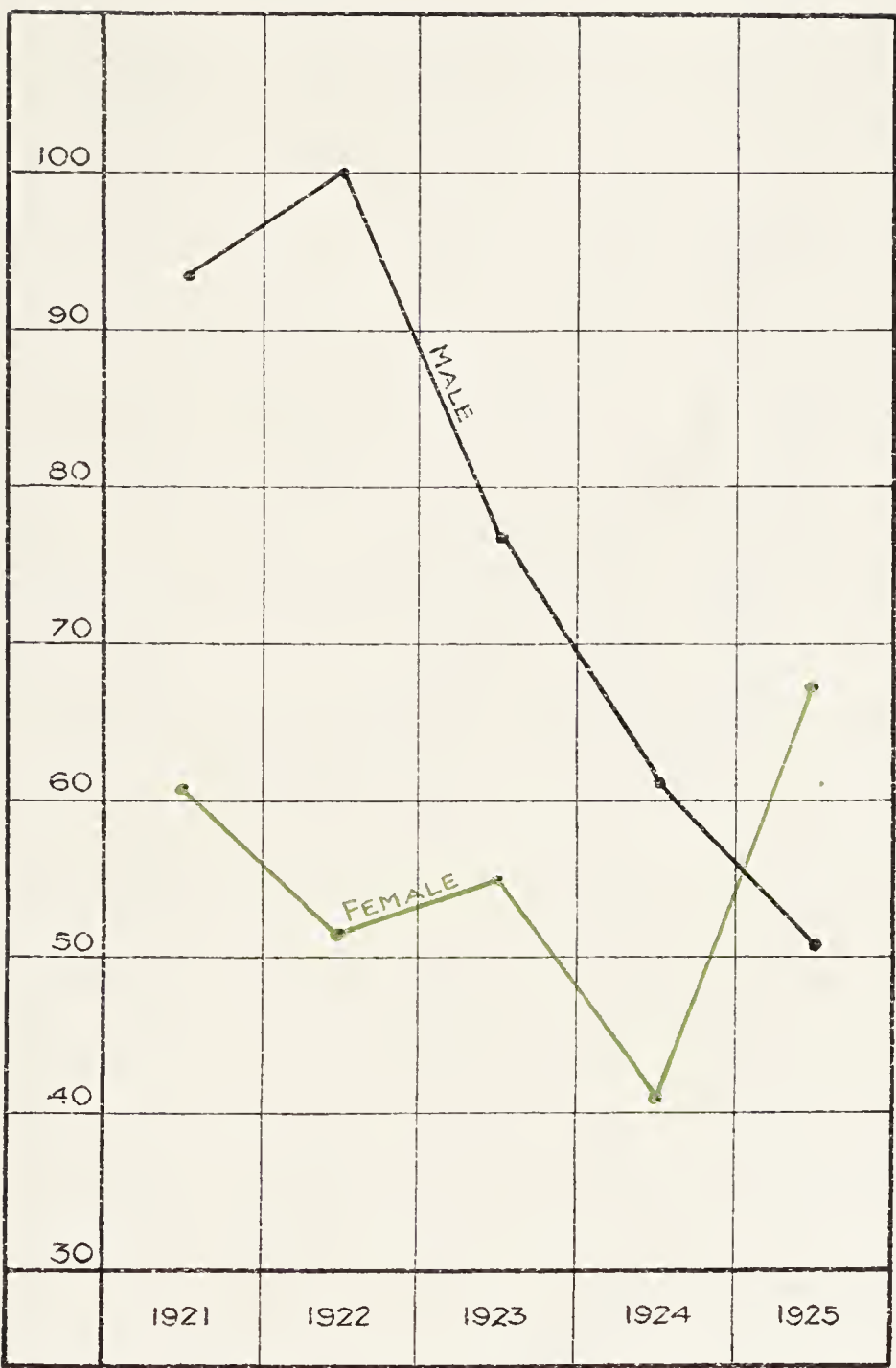






Chart VII.  
Number of New Syphilis Patients  
(Male and Female).







### Chart VIII.

Total Number of Gonorrhœa Patients  
(with Sub-division into Male and Female).

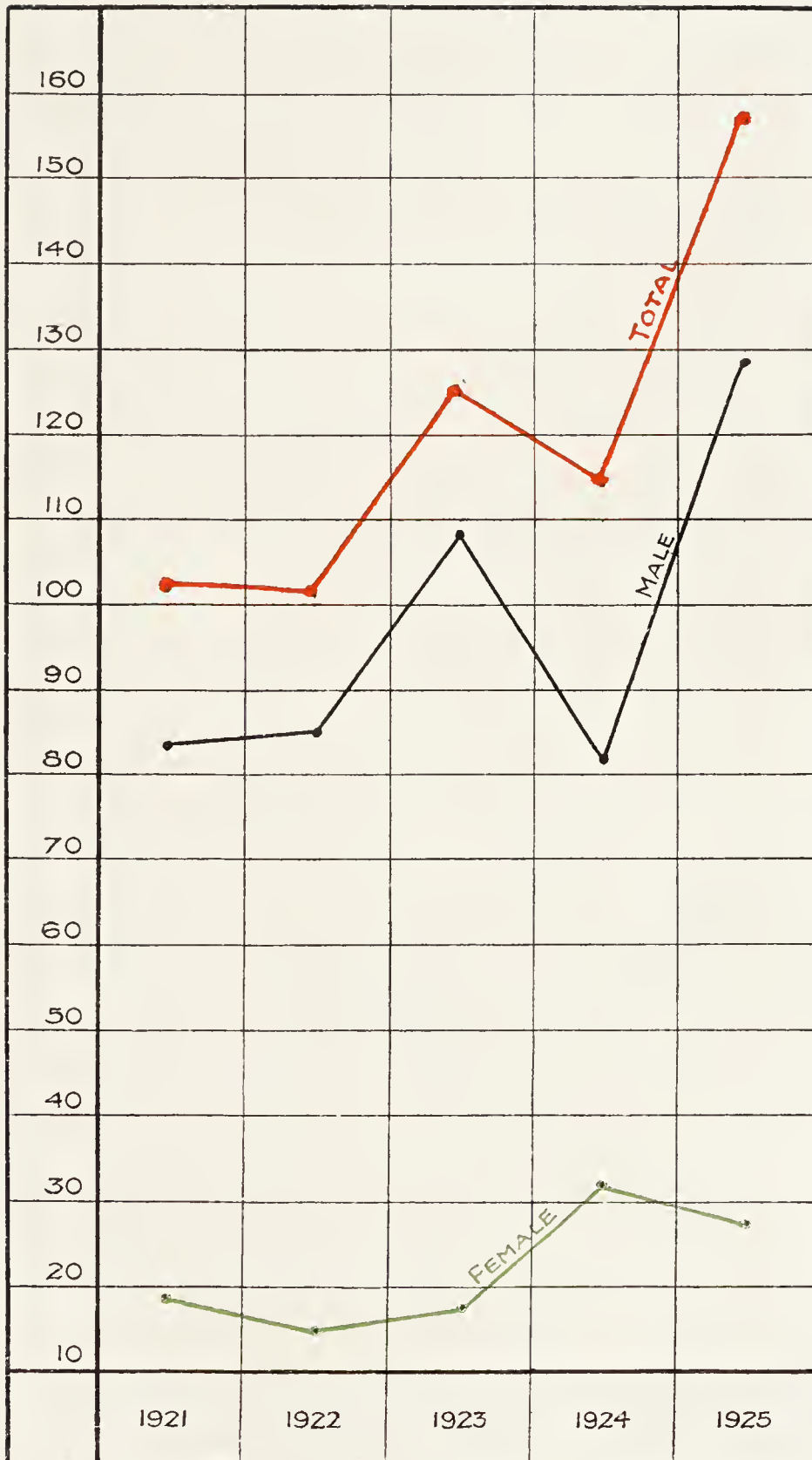
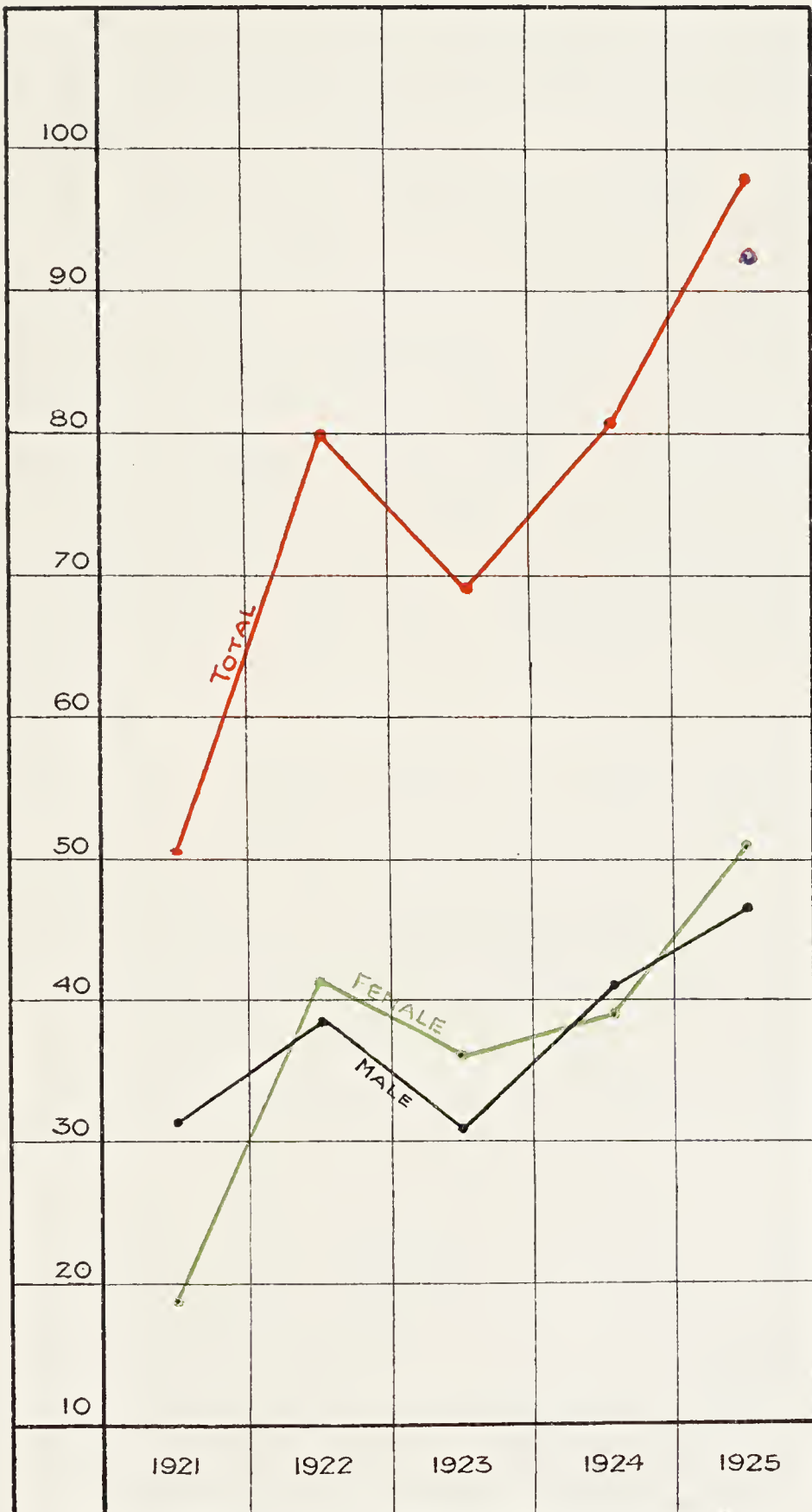




Chart IX.

Total Number of Non-Venereal Patients.  
(with Sub-division into Male and Female).







- (2) The percentage of patients residing some distance from Durham increased during 1925. The possible attendance of such "country patients" is always lower than that of patients residing in the town and immediate neighbourhood.
- (3) The long and severe winter had a marked effect on the daily attendances of the "country patients."
- (4) An increase of intercurrent illness amongst the patients attending the clinic reduced the attendances.

Charts IV. and V. show the number of new patients. It will be seen from these charts that the fall in the number of new cases in the year 1923 was solely due to the temporary reduction in the number of male cases. Close enquiry suggests that this was due to the prolonged sick leave of the medical officer in charge, with several changes of locum tenens, which resulted in a great falling off of the number of patients sent by medical practitioners for consultation and necessary treatment.

Charts VI., VII. and VIII. show graphically the number of new venereal cases divided into syphilis and gonorrhœa.

Chart IX. shows the steady increase in the number of new non-venereal cases. The explanation of the increase is that the necessity of having a definite opinion on conditions that may possibly be venereal in origin is gradually being realized by general practitioners, and they are availing themselves of the services of the trained staff of the clinic.

There have been developments along lines other than those of diagnosis and treatment of disease. More accurate records of the patients' treatment and progress are now kept. From these records reports are made to the patients' medical attendants. Previous to the re-organization this co-ordination was almost impossible. In 1921 only 45 reports were sent to doctors regarding their patients. This number increased to 210 in 1925.

In 1921 all the microscopical work required at the Durham Clinic was done by the College of Medicine. With the provision of a microscope in 1922 practically all this work was undertaken by the medical officer. The saving has been considerable, and there has been an added convenience and assistance to rapid diagnosis, supervision and control of treatment particularly in gonococcal infections.

Chart X. shows the extent to which this work has been done at the clinic.

It can confidently be expected that a similar increase in the usefulness of the clinic at Stockton will occur when the building now in course of erection is ready for occupation.

### **BLIND PERSONS.**

The executive work under the Blind Persons Act, 1920, is in the hands of Dr. C. Franks, the Deputy County Medical Officer, and it will be seen from the following report, which he has submitted to me, that fairly satisfactory progress has been made by the County Council as the administrative body responsible under the Act.

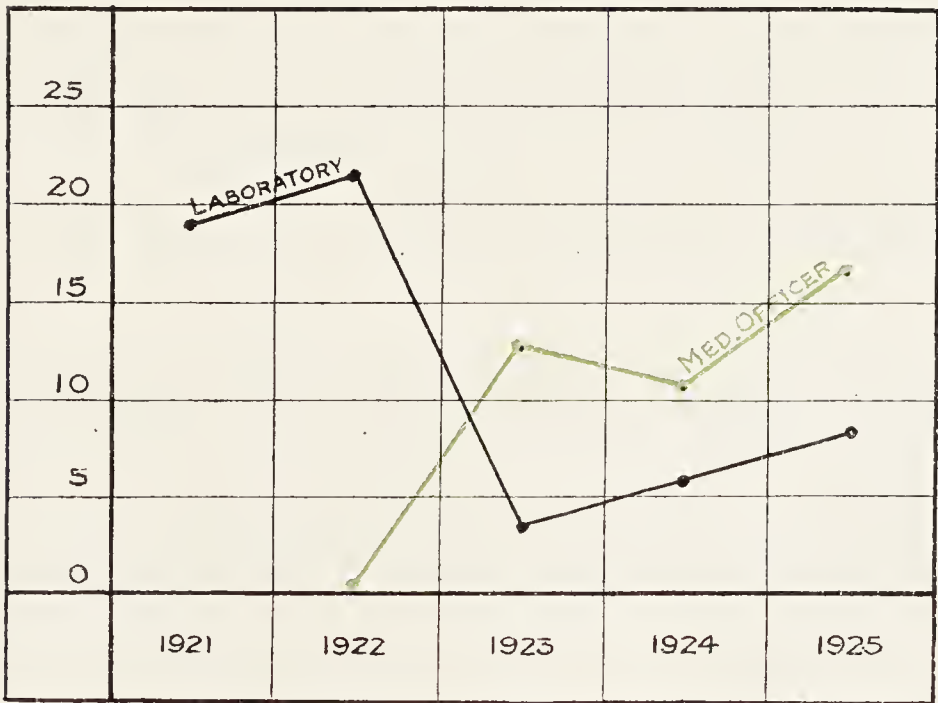
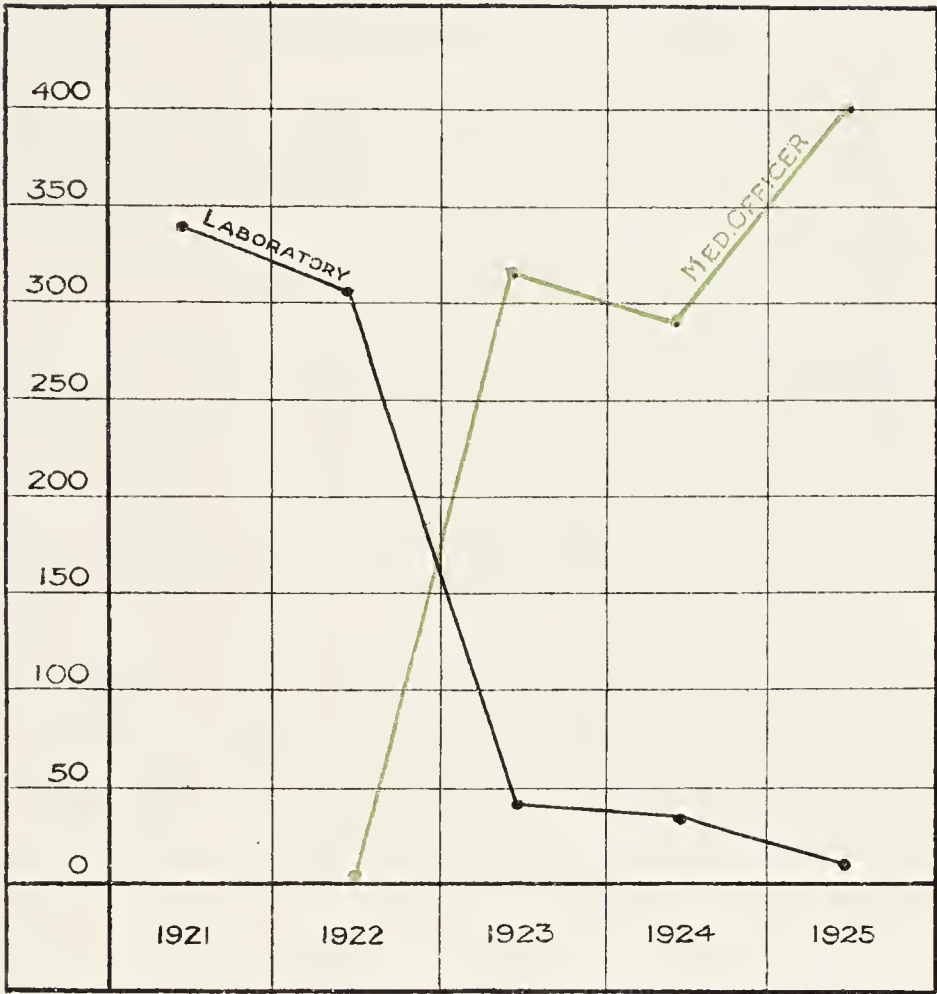
It is particularly interesting to note that nearly one-quarter of the blind persons became blind before they reached the age of one year, and nearly one-third before the fifth year was obtained.

Arrangements have been made with two voluntary associations, the Sunderland and Durham County Royal Institute for the Blind, and the Cleveland and South Durham Workshops for the Blind, for carrying out the provisions of the Blind Persons Act, 1920, the sphere of activities of the former being the northern part of the county and the latter the southern part.

These arrangements, which are for a probationary period of two years, have received the sanction of the Ministry of Health.



Chart X.  
Microscopical Examinations by  
Medical Officer of the Clinic  
and by the College of Medicine  
Laboratory, Newcastle-on-Tyne.





In return for a capitation grant the conditions of the agreement are:—

- (1) That all blind persons residing in the administrative area of the county shall be periodically visited by a competent and trained home teacher.
- (2) All trained blind persons shall be provided with employment either in a workshop or at home.
- (3) An augmentation wage shall be paid for each worker.
- (4) The unemployable blind shall be taught by the home teacher some activity, either useful or for amusement, in order to occupy their time and so relieve the monotony that is inseparable from the life of an untrained and unoccupied blind person.
- (5) Payment to necessitous blind persons from the funds of the voluntary associations of any sums that may be needed to provide for the comfort of such blind persons, or provision of clothing, help in the home, etc.

There are six home teachers employed in the county area.

In addition to the above agreement the County Council subscribe to the National Library for the Blind in order that all blind readers may receive books free of cost.

One blind person is profitably employed in copying braille books.

Arrangements have been made for sending blind children, ages three months to five years, to the Sunshine Home.

The education authorities are responsible under previous Acts of Parliament for the elementary and technical education of blind persons.

The number of blind persons residing in the county at the end of 1925 was 777.



The 31st March, 1925, is the last date for which an analysis of the total number of blind persons is available, the total then being 629; 370 males and 259 females.

The total numbers at the various age periods on 25th March, 1925, were:—

Age period.	Total blind.
0 to 5 years .....	12
5 „ 16 „ .....	90
16 „ 21 „ .....	53
21 „ 30 „ .....	51
30 „ 40 „ .....	75
40 „ 50 „ .....	72
50 „ 60 „ .....	89
60 „ 70 „ .....	96
70 years and upwards .....	91

---

Total ..... 629

---

The age at which blindness occurred:—

Age period.	Number.
0 to 1 year .....	141
1 „ 5 years .....	50
5 „ 10 „ .....	54
10 „ 20 „ .....	62
20 „ 30 „ .....	55
30 „ 40 „ .....	77
40 „ 50 „ .....	57
50 „ 60 „ .....	45
60 „ 70 „ .....	50
70 years and upwards .....	20
Unknown .....	18

---

Total ..... 629

---

There is every reason to anticipate that the number of cases of blindness occurring in the early years of life will

continue to show a diminution through the establishment of maternity homes, child welfare and ante-natal centres, improved midwifery service, venereal diseases treatment centres, and the increased number of district nursing associations.

### ISOLATION HOSPITALS.

So far as hospitals for the isolation of cases of infectious disease, other than smallpox, are concerned, there has been practically no change in the accommodation during the past five years. Generally speaking the accommodation is fairly satisfactory, and, compared with many other administrative counties, Durham is very favourably equipped in this respect.

Several joint hospital boards have been established, thus Auckland Joint Hospital Board provides two hospitals for the isolation of ordinary cases of infectious disease from the urban districts of Crook, Shildon, Tow Law, Willington, and the rural district of Auckland; while the Lanchester Joint Hospital Board similarly provides three hospitals for the urban districts of Annfield Plain, Benfieldside, Consett, Leadgate, Stanley, and Tanfield, and the rural district of Lanchester. Chester-le-Street Joint Hospital Board are responsible for the treatment of patients from the Washington and Chester-le-Street urban districts and the Chester-le-Street rural district; while joint hospital boards have been established for the Southwick urban district and the South Shields rural district and for the Stanhope urban district and the Weardale rural district. A joint hospital committee established by the County Council includes the urban districts of Blaydon, Ryton, and Whickham. An arrangement exists by which cases from the Darlington rural district are admitted into the Darlington County Borough Hospital, and similarly, cases from the Billingham urban district and the Stockton rural district are treated in the Stockton Borough Hospital.

The majority of the ordinary isolation hospitals are permanent structures of brick or stone built in accordance with

plans approved by the Local Government Board, and both as regards structure and equipment may be considered satisfactory.

On the other hand, the accommodation provided in the hospitals constructed of iron and wood, such as are provided for Durham City and the urban districts of Brandon; Barnard Castle; Bishop Auckland; Blaydon, Ryton, and Wickham; and Hetton; and for the rural district of Houghton-le-Spring, is not so satisfactory and in some cases is inadequate for the needs of the districts.

The accommodation provided in the Jarrow Hospital does not now meet the requirements of the borough, and the Corporation are considering the question of building a new hospital. The Blaydon, Ryton, and Wickham Joint Hospital Committee have also had plans prepared for a new permanent hospital on the site of their present buildings, the site to be extended for the purpose.

The most serious lack of satisfactory isolation hospital accommodation is to be found in the south-east of the county, where there is no suitable hospital either for the West Hartlepool county borough or for the borough and rural district of Hartlepool. The only hospital available is one built of wood which belongs to the Port Sanitary Authority, which is certainly not up to modern requirements in many particulars and is utterly inadequate to properly deal with cases of infectious disease arising in these areas, which have an approximate population of 100,000. Recently the authorities concerned have been considering the question of providing a permanent hospital suitable for the requirements of the districts, and several sites have been inspected, and it is certainly most desirable in the interests of public health that the Hartlepool area should be provided with a satisfactory hospital.

For smallpox cases, in addition to the joint hospital authorities which exist for the treatment of ordinary infectious



diseases, several hospital boards have been established, viz.: the Durham and Brandon Joint Hospital Board with a hospital at Shincliffe, near Durham, for the City of Durham, the Brandon urban district, and the Durham rural district; the North-east Durham Joint Smallpox Hospital Board, with a hospital at Whiteleas, near South Shields, for the county boroughs of South Shields and Sunderland, the borough of Jarrow, the urban districts of Felling, Hebburn, and Southwick, and the rural districts of Sunderland and South Shields; the Houghton and Hetton Joint Hospital Board, with a hospital at Rainton, for the Hetton and Houghton-le-Spring urban districts and the Houghton rural district; and the Easington and Sedgefield Joint Hospital Board, with a permanent hospital near Thornley, for the Easington and Sedgefield rural districts. By arrangement cases of smallpox from the Seaham Harbour urban district are admitted into the Easington and Sedgefield joint hospital, while smallpox cases from the Spennymoor and Stanhope urban districts and the Weardale rural district are admitted into the smallpox hospital of the Auckland, etc., Joint Hospital Board at Binchester. The Stockton corporation have a brick and wood smallpox hospital situated a few miles from Stockton on the Stockton and Sunderland road, and cases of smallpox from the Billingham urban district and the Stockton rural district are admitted there. For several years prior to 1925 cases of smallpox occurring in the areas of the Chester-le-Street Joint Hospital Board and the Blaydon, Ryton and Whickham Joint Hospital Committee were admitted by agreement into the hospital at Shincliffe belonging to the Durham and Brandon Joint Hospital Board, with the object of enabling the smallpox hospitals to be used by the County Council for the treatment of tuberculous cases, it being laid down in the agreement between the County Council and the authorities concerned that if smallpox attained epidemic proportions these hospitals should be forthwith handed back to the responsible hospital authorities. In consequence of smallpox being seriously prevalent in the areas concerned during 1925, these hospitals were again utilised for

the treatment of smallpox cases. During 1925 an arrangement was made between the Councils of the West Hartlepool county borough, the Hartlepool borough, the Hartlepool port sanitary authority, and the Hartlepool rural district, on the one side, and the Middlesbrough corporation on the other, by which the latter corporation undertook for a number of years to treat the cases of smallpox occurring in these districts. Prior to this arrangement between the Hartlepool authorities and the Middlesbrough corporation, a conference had been called of the local authorities in south-east Durham by the Stockton corporation to consider the question of providing a permanent smallpox hospital for the Hartlepool and Stockton areas, but although the proposal was supported by the County Council the authorities of the Hartlepool area decided to make the arrangements above-mentioned with the Middlesbrough corporation. During the year, owing to the prevalence of smallpox, the smallpox hospital of the Lanchester Joint Hospital Board was considerably enlarged, and steps were also taken to enlarge the Sealburns Hospital of the Blaydon, Ryton and Whickham Joint Hospital Committee.

Several of the smallpox hospitals in the county are permanent structures, such as the hospital belonging to the North-east Durham Joint Hospital Committee, at Whiteleas; the hospital of the Hetton and Houghton authorities at Rainton; and the hospital of the Easington and Sedgefield rural districts, near Thornley. Most of the others are, however, mostly constructed of wood or iron and wood.

As stated under the section on smallpox, in several districts, owing to the large number of cases of smallpox, the hospital accommodation for the treatment of cases of that disease became inadequate, but the difficulty was somewhat minimised owing to the hospital authorities of other districts permitting vacant beds to be utilised for cases of smallpox from the districts in question.

### **WATER SUPPLY.**

The administrative county is partly supplied by upland surface water and partly by water from deep wells. Generally



speaking, it may be stated that the north-east and eastern portion of the county obtain their water from deep wells in magnesian limestone, through the Sunderland and South Shields Water Company and the Hartlepool Gas and Water Company, though some fairly populous places in this area obtain their supply independently of these water companies, either by arrangement with the colliery companies or by small private companies. The greater portion of the centre of the county, including part of the districts towards the west, are supplied by water obtained from high gathering grounds by the Durham County Water Board, the water gravitating to several large reservoirs in the western part of the county from which it is distributed by gravitation to numerous service reservoirs. In the neighbourhood of Newcastle-on-Tyne part of the county is served by the Newcastle and Gateshead Water Company, which also supplies an upland water. The south of the county, including Stockton, obtains its supplies from the Tees Valley Water Board, which draws its upland surface supply partly from a reservoir in the North Riding of Yorkshire and partly from the River Tees.

There is no reason to doubt the organic purity of these public water supplies and there is no evidence for many years past of water-borne disease in the administrative county. It cannot, however, be said that the River Tees is a safe source of water supply, for it receives from above Middleton-in-Teesdale downwards unpurified and partially purified sewage at many points. The same remark applies to the River Wear, from which water to supply the town of Bishop Auckland is taken. This river is seriously polluted above the intake of the Bishop Auckland supply, and at one time outbreaks of enteric fever, attributable in my opinion to the drinking of polluted water, occurred in the town. For many years past, however, the methods of purification adopted appear to have been effective in preventing water-borne diseases.

In the western part of the county the towns of Stanhope and Barnard Castle obtain independent supplies of upland surface water, as do practically all the villages in the Weardale



rural district. Some of the villages in the Barnard Castle, Darlington, Stockton, and Hartlepool rural areas, which are largely agricultural, have no public water supplies and rely on local well waters or springs.

Generally speaking, however, the county is extremely well supplied with water.

At one time water from the Weardale and Consett water supply proved inadequate during the periods of drought, but since the Company was taken over by the Durham County Water Board an additional supply has been obtained by laying a pipe line from the Burnhope Burn in Upper Weardale to the existing reservoirs, by which an increased supply of 2,640,000 gallons a day has become available, and the water supply undoubtedly now meets present requirements.

There is some evidence that the present supply obtained by the Sunderland and South Shields Water Company from the deep wells in the east of the county will at no distant date become inadequate for the needs of the districts served by it, and it is proposed in the near future to erect a new reservoir in the Burnhope Valley, water from which will be available for the area served both by the Durham County Water Board and the Sunderland and South Shields Water Company.

The water supply from the deep wells in the county is very hard but no steps are taken to soften it before supplying it for consumption. On the other hand the water from the upland gathering grounds, where there is a good deal of peat, has a tendency to plumbo-solvent action, but I understand that this tendency is overcome by suitable treatment, and I have not for many years heard of any case of lead poisoning arising from the drinking of water in this county.

A constant supply is provided by all the public water companies in the county.

In increasing numbers dwellings have a water tap inside the house, though in some of the colliery villages the water is obtained from outdoor standpipes. In many of the older

colliery houses the supply is obtained from a tap in the pantry for which there is no sink or waste pipe with the result that if the tap becomes defective discomfort is caused to the tenants, and in many instances dampness to the dwelling. No doubt wastage of water is prevented by this antiquated and unhygienic arrangement, but it is certainly desirable that there should be available in every dwelling-house a proper sink or other means for carrying off the waste waters.

### HOUSING.

The figure supplied by the Registrar-General in respect of the Census 1921 revealed the fact that overcrowding in the County of Durham, the definition of overcrowding being more than two persons per room, was greater than at the Census 1911, and was greatly in excess of that for England and Wales. At the Census 1911, 29.2% of the population were overcrowded in the county, the figure for England and Wales being only 9.1; while in 1921 the percentage of overcrowding in the county was 29.5.

Unfortunately the Registrar-General, according to the Census 1921, does not give separate figures for the administrative county, his tables for the most part dealing with the county as a whole, including the county boroughs. Excluding the county boroughs the percentage of overcrowding in the county was approximately the same in 1921 as in 1911, and continued excessive as compared with England and Wales.

This overcrowding is further emphasised by the fact that while in England and Wales the number of rooms per person exceeds 1.0 (1.05 in 1911) in Durham county as a whole the proportion is only 0.75.

It is interesting to note that while in the county as a whole the average size of the family has been reduced from 4.77 in 1911 to 4.61 in 1921, a drop of over 3%, the average number of rooms per average family has been reduced from 3.56 in 1911 to 3.46 in 1921. Taking the individual districts



in the administrative county, the highest number of persons per family was 5.23 in the Easington rural district and also exceeded 5.0 in the Blaydon urban district, while the lowest number of persons per family was 3.98 in the Barnard Castle urban district, this being the only district in the county where the number of persons per family was less than 4.0.

As regards the proportion of rooms per person, the worst figure was in the Hebburn urban district, viz., 0.59 rooms per person, or nearly 2 persons per room; while in fifteen districts the proportion of rooms per person was less than 0.70. On the other hand the number of rooms per person was as high as 1.17 in Barnard Castle and exceeded 1.0 in one other district, Darlington rural district (1.02). In none of the county boroughs was the proportion of rooms per person below 0.70.

For the whole of the county, including the county boroughs, the increase in the number of dwellings at 1921 as compared with 1911 was 9.6%, but on the other hand the number of private families increased over the same period by 11.5%.

Comparing the surplus or deficiency of rooms in the county as a whole in 1921 on the basis of the standard of England and Wales there was a deficiency of 353,158 rooms, equal to 24.7%, the deficiency of rooms in the administrative county being 308,924.

In the administrative county no less than 263,675 persons were living under overcrowded conditions, i.e., more than two persons per room, equal to 28.5% of the population; this percentage being as high as 43.6 in Leadgate and exceeding 40.0 in Hebburn, Blaydon, Annfield Plain, and Southwick urban districts; the lowest percentage of overcrowding being in the Hartlepool rural district (11.2). On the other hand the percentage of overcrowding did not exceed 20 in the urban districts of Barnard Castle, Bishop Auckland, Shildon, and in the rural districts of Barnard Castle and Weardale, in none of which districts is coal mining carried on to any considerable extent.



According to the last Census over 200,000 persons in the administrative county were living in houses of not more than two rooms, and of these 76% of the one-roomed houses and 56% of the two-roomed houses were overcrowded. In addition, approximately 250,000 persons were living in three-roomed houses of which 35% were overcrowded.

As regards the steps which have been taken to meet the housing deficiency of the administrative county, the following table gives particulars of the housing needs, of the number of houses in course of construction, and the actual number of completed houses, and it will be noted that at the end of 1925 approximately 15,400 houses had been built and that rather over 3,000 houses were in course of construction at the end of the year. Allowing 4.6 persons per house, the new houses completed would provide accommodation for approximately 71,000 persons nearly all these houses having been erected during the last five years. During the last five years the natural increase of population has been approximately 60,000 in the administrative county, while the estimated increase, based on the Registrar General's figures, is approximately 50,000. It is obvious, therefore, that although the erection of new dwellings during the last five years has been considerable, they have done little more than provide for the natural increase of population, and have done very little to relieve the amount of overcrowding revealed both by the census figures of 1911 and 1921. As a matter of fact it was estimated about the time of the last census that over 42,000 houses were required to satisfy the housing needs of the county, and at the end of 1925, bearing in mind the increase of population during the last five years, approximately that number of houses is still required to overcome the overcrowding and to replace houses recognised as unfit for habitation.

The urgent need for additional houses in the county is brought to my notice practically every day. The reports of the county health visitors teem with gross instances of over-

crowding producing conditions where good health is impossible and morality difficult to maintain. I receive weekly, pathetic letters asking me if I can use my influence in obtaining a better house for persons urgently in need of it, and when these appeals are referred to district medical officers of health the almost invariable reply is that there are no houses available. At one time I referred all bad cases of overcrowding reported to me to the district medical officers of health but the usual reply was that no improvement was at present possible. From some districts protests were received in reply as to the futility of reporting such cases of overcrowding seeing that nothing could be done. Subsequently only cases of overcrowding where one or more cases of tuberculosis were in residence were reported to the district medical officers of health, but even with such cases it has not been possible, except in a very small minority of cases, to effect an improvement.

It has in fact been a matter of great surprise to me that the general health of the population of this county, as viewed from the point of total death-rate, has been maintained at such a comparatively high level having regard to the unfortunate housing conditions to which such a large proportion of the population are subject. This scarcity of houses seriously prejudices the success of our efforts to prevent and reduce tuberculosis, it is a serious handicap to our maternity and child welfare work, and it undoubtedly is one of the chief causes of our comparatively high infant mortality rate, which, though very materially reduced during the last twenty years, keeps at a very much higher level than that for England and Wales and even our large towns.

The problem is undoubtedly a difficult one owing to the present financial difficulties, and the difficulty is further increased by the fact that many people living in bad conditions are unable to pay at the present time an economic rent owing to the high cost of providing dwellings. In some districts in the county housing schemes carried out by the district sanitary authorities have not involved any serious loss but in others



**Statement as to the position of Housing Schemes in  
the Administrative County of Durham, on the  
31st December, 1925.**

(From information supplied by the respective District Councils.)

Sanitary District.	Housing needs as estimated by the Local Authority.		No. of houses in course of construction.		No. of houses completed.	
	Number of houses to be built by the Local Authority.	Number of houses to be provided by private enterprise.	By Private Persons	By the Local Authority.	By Private Persons	By the Local Authority.
1	2.	3.	4	5.	6.	7.
<b>URBAN.</b>						
Durham .....	450	Nil.	5	44	25	60
Hartlepool .....	578	4	2	13	4	141
Jarrow .....	2,417	234	—	34	—	178
Stockton .....	1,780	24	44	122	204	422
Annfield Plain .....	700	4	36	6	178	196
Barnard Castle .....	165	Nil.	13	—	42	—
Benfieldside .....	396	5	—	50	103	68
Billingham .....	—	Nil.	4	24	168	6
Bishop Auckland .....	531	Nil.	5	—	30	—
Blaydon .....	2,500	55	163	60	234	304
Brandon and Byshottles .....	510	Nil.	4	—	13	337
Chester-le-Street .....	1,100	132	4	28	168	470
Consett .....	1,174	8	—	106	80	351
Crook .....	312	Nil.	3	—	40	228
Felling .....	1,920	Nil.	24	37	95	179
Hebburn .....	2,764	34	5	48	19	440
Hetton-le-Hole .....	1,736	1	16	65	63	125
Houghton-le-Spring .....	570	Nil.	5	41	64	126
Leadgate .....	240	168	37	—	432	38
Ryton .....	500	66	5	—	258	235
Seaham Harbour .....	810	28	27	—	250	87
Shildon .....	275	Nil.	5	—	33	126
Southwick-on-Wear .....	596	Nil.	2	2	1	212
Spennymoor .....	549	1	2	—	16	—
Stanhope .....	24	Nil.	—	—	—	—
Stanley .....	1,258	229	29	72	145	316
Tanfield .....	500	200	—	—	82	24
Tow Law .....	200	Nil.	—	—	—	—
Washington .....	—	Nil.	10	75	99	137
Whickham .....	903	60	22	124	245	180
Willington .....	181	9	—	30	18	60
<b>RURAL.</b>						
Auckland .....	2,433	7	72	8	143	168
Barnard Castle .....	130	Nil.	3	—	29	20
Chester-le-Street .....	6,100	93	47	106	280	796
Darlington .....	80	3	67	—	105	26
Durham .....	1,200	60	17	104	178	368
Easington .....	2,097	1,079	399	148	1533	752
Hartlepool .....	50	817	6	—	90	—
Houghton-le-Spring .....	1,100	101	27	32	224	260
Lanchester .....	1,068	64	121	92	734	223
Sedgefield .....	1,170	356	17	38	327	18
South Shields .....	750	3	44	154	177	172
Stockton .....	94	258	10	—	50	—
Sunderland .....	2,330	3	13	98	125	385
Weardale .....	30	3	1	—	14	—
<b>TOTALS .....</b>	<b>42,071</b>	<b>4,109</b>	<b>1316</b>	<b>1761</b>	<b>7163</b>	<b>8234</b>





the arrears of rent have reached very considerable sums, but whether this loss of money is unavoidable in certain cases or is a result of laxity or inefficient management is not for me to say, though the fact none the less remains that in some districts schemes have been practically self-supporting, while in other districts where the industrial conditions are apparently similar a serious loss has been involved.

So serious is the housing problem in this county and so heavy is the present cost of erecting working-class dwellings which will conform with the Government requirements and the bye-laws with regard to new streets and buildings that I have been forced to the conclusion that in the interests of health and decency it is important that houses should be allowed to be built of any cheap material, provided that they are weather-proof, well lighted and ventilated and provided with essential requirements, even though these houses may only have a life of twenty years. If the material used is combustible the risk of danger to the inmates from fire can be reduced to a minimum by simple precautions in construction, if there is a reasonable space about the dwellings, and not more than sixteen houses per acre should under any circumstances be permitted. I am satisfied that any reasonable schemes for erecting houses cheaply and at a rapid rate should be favoured in this county, as I am of the opinion that any objections associated with the cheaper type of house are of much less importance than are the appalling conditions which at present exist, and which at the present rate of construction of new dwelling-houses of the officially approved type will not be properly tackled during the present generation.

It is doubtful if anybody not intimately associated with health work in this county can fully appreciate the present lamentable conditions, so far as housing is concerned, of something like one-third of the total population of this administrative county, but it is a matter of very great concern to me, and the very slow progress which is being made to deal effectively with the problem leads one almost to despair.

Neither houses constructed in flats nor tenements are suitable, nor would they be welcomed in this administrative county, and in my opinion there are many objections to them both on social and health grounds, and I am inclined to think that a solution of the present problem might be found, at any rate to a material extent, by the erection of one-storied dwellings of comparatively light construction.

The following table gives particulars of action taken by the district sanitary authorities under the Housing Acts towards the closing of houses unfit for habitation during each of the last five years.

TABLE 49.

District.	Situation.	No. of Dwellings.	Date of Closing Order.
Chester-le-Street R.D...	10, Cuthbert Street, Birtley .....	1	17th February, 1921.
Houghton-le-Spring R.D.	Tile Sheds Cottage ....	1	3rd March, 1921.
Do. ...	29, South Street, West Rainton .....	1	31st March, 1921.
Chester-le-Street R.D...	5, Chapel Entry, Lumley.....	1	12th May, 1921.
Do. ...	Nos. 1 to 4, Woods Cottages, Plawsworth	4	9th June, 1921.
Easington R.D. ....	Granary, White House Farm, Easington ...	1	30th June, 1921.
Do. ....	Wooden building in Quarry near Holme Hill Farm, Easington.....	1	30th June, 1921.
Houghton-le-Spring R.D.	2 houses in Station Road, Leamside ....	2	26th May, 1921.
Barnard Castle R.D. ...	2 houses situated at Headlam .....	2	11th August, 1921.
Do. ...	School Square, Cockfield	1	18th November, 1921.
Consett U.D. ....	6a, Rippon Lane. Consett.....	1	1st March, 1922.
Do. ....	5, Victoria Street, Consett.....	1	1st March, 1922.
Chester-le-Street R.D...	Hind's Cottage, Whitehouse Farm, Washington.....	1	22nd December, 1921.
Do. ...	Nos. 1, 2, 4 & 5, Well Bank, High Usworth	4	16th March, 1922.



TABLE 49.—Continued.

District.	Situation.	No. of Dwellings.	Date of Closing Order.
Houghton R.D. ....	Great House Yard, Newbottle .....	1	2nd February, 1922.
Do. ....	Nos. 23 & 24, George Street, Dubmire, Fence Houses .....	2	30th March, 1922.
Auckland R.D. ....	White House, Toft Hill .....	1	14th March, 1922.
Chester-le-Street R.D...	1, Blackburn's Buildings, Edmondsley...	1	11th May, 1922.
Do. ...	Nos. 1-5, West Row, Portobello.....	5	3rd August, 1922.
Auckland R.D. ....	69 & 70, Thistleflat.....	2	3rd October, 1922.
Do. ....	White House, Toft Hill	1	5th December, 1922.
Chester-le-Street R.D...	Hall's Buildings, Daisy Hill, Sacriston .....	2	23rd November, 1922.
Do. ...	Boundary Cottage, Wrekenton.....	1	Undated.
Do. ...	Nos. 1 & 2, Garden Cottage, Witton Gilbert .....	2	26th October, 1922.
Houghton-le-Spring R.D	63, East Rainton .....	1	12th October, 1922.
Sedgefield R.D. ....	Saddler Street, Ferryhill .....	1	20th October, 1922.
Auckland R.D. ....	The Hut, near Chapel Street, Helmington Row.....	1	9th January, 1923.
Barnard Castle R.D. ...	Front Street, Cockfield (Unnumbered) .....	3	10th January, 1923.
Do. ...	Black House Terrace, Woodland .....	1	10th January, 1923.
Chester-le-Street R.D...	Nos. 1 & 2, Orchard House, Witton Gilbert .....	2	21st December, 1922.
Do. ...	Hall's Buildings, Daisy Hill, Sacriston .....	1	23rd November, 1922.
Do. ...	White Cottage, Plawsworth .....	1	18th January, 1923.
Do. ...	Old Jingling Gate Cottage, Twizell, West Pelton .....	1	15th February, 1923.
Do. ...	Humble Burn Cottage, Craghead.....	1	15th February, 1923.
Do. ...	Ayre's Buildings, Pelton .....	1	15th February, 1923.
Sedgefield R.D. ....	Old Mill, Cornforth...	1	9th March, 1923.
Do. ....	High Street, Bishop Middleham (Unnumbered) .....	2	9th March, 1923.
Darlington R.D. ....	Redworth .....	1	30th April, 1923.
Sedgefield R.D. ....	Front Street, Sedgefield.....	1	4th May, 1923.

TABLE 49.—Continued.

District.	Situation.	No. of Dwellings.	Date of Closing Order.
Consett U.D. ....	8, Green Street, Consett.....	1	2nd May, 1923.
Do. ....	22, Victoria Street, Consett.....	1	2nd May, 1923.
Do. ....	25, Victoria Street, Consett.....	1	2nd May, 1923.
Chester-le-Street R.D...	1, Hobble Trot, Nettlesworth .....	1	2nd August, 1923.
Do. ...	3, Nettlesworth Old Pit.....	1	2nd August, 1923.
Do. ...	3a, Nettlesworth Old Pit.....	1	2nd August, 1923.
Do. ...	4, Nettlesworth Old Pit.....	1	2nd August, 1923.
Do. ...	5, Nettlesworth Old Pit.....	1	2nd August, 1923.
Do. ...	Badger Castle, Waldrige Fell .....	1	30th August, 1923
Auckland R.D. ....	Lands Bank .....	1	4th December, 1923.
Chester-le-Street R.D...	Nos. 1 & 2, The Barracks, Kibblesworth.....	2	27th September, 1923.
Chester-le-Street R.D...	The Barracks, Kibblesworth .....	5	27th September, 1923.
Do. ...	Ravensworth Arms Cottage, Lamesley..	1	27th September, 1923.
Do. ...	Red House, Low Fell...	1	27th September, 1923.
Do. ...	Adjoining the Colliery Heapstead, Allerdene	2	27th September, 1923.
Do. ...	Near New Compressor House at Allerdene Colliery, Allerdene..	1	27th September, 1923.
Do. ...	Adjoining West side of Bird Inn, High Hold, Urpeth .....	3	27th September, 1923.
Do. ...	Nos. 2-8, Coxon's Row, Edmondsley.....	7	27th September, 1923.
Do. ...	Nos. 1-25, Fell Row, Edmondsley.....	25	27th September, 1923.
Do. ...	Part of Cellar Kitchen, 27, Fell Row, Edmondsley...	1	27th September, 1923.
Do. ...	Part of Cellar Kitchen, 28, Fell Row, Edmondsley...	1	27th September, 1923.
Do. ...	3, East Pelton Farm Cottages.....	1	25th October, 1923.
Do. ...	Nos. 9-13, Atkinson's Buildings, Birtley...	5	20th December, 1923.
Do. ...	2, Swale's Cottages, Birtley.....	1	20th December, 1923.

TABLE 49.—Continued.

District.	Situation.	No. of Dwellings.	Date of Closing Order.
Chester-le-Street R.D....	Nos. 9, 10, 21, 22, 25 and 27, Beechgrove Terrace, Black House, Edmondsley.....	6	20th December, 1923.
Do. ....	House next to Glendinning Arms, Witton Gilbert.....	1	20th December, 1923.
Auckland R.D. ....	Nos. 1, 2, 3, High Doverfold, Helmington Row .....	3	8th January, 1924.
Chester-le-Street R.D...	6, Anderson's Buildings, Findon Hill, Sacriston .....	1	14th February, 1924.
Do. ....	Foxey Pit, Lumley....	1	14th February, 1924.
Do. ....	Nos. 1-30, Red Rows, Edmondsley.....	30	13th March, 1924.
Easington R.D. ....	Old Blue House, near Haswell Plough ....	1	6th March, 1924.
Do. ....	10, Murton Street, Murton.....	1	6th March, 1924.
Do. ....	4 Vans (unnumbered) at Shotton Colliery	4	6th March, 1924.
Easington R.D. ....	14 Huts (unnumbered) at Shotton Colliery	14	6th March, 1924.
Do. ....	7 Huts (unnumbered), Throstle's Nest, near Wheatley Hill	7	6th March, 1924.
Do. ....	1 Hut, near Swan Castle, Wheatley Hill.....	1	6th March, 1924.
Do. ....	4 Vans (unnumbered), Crimdon Dene, near Hart .....	4	6th March, 1924.
Do. ....	27 Huts (unnumbered), Crimdon Dene, near Hart .....	27	6th March, 1924.
Consett U.D. ....	1, Murray's Villas, Consett .....	1	15th January, 1924.
Chester-le-Street R.D...	Girdle Cake Houses, Fatfield .....	1	5th June, 1924
Easington R.D. ....	Huts situate behind Discharged Soldiers' and Sailors' Club, Wheatley Hill .....	3	5th June, 1924.
Do. ....	Vans situate at High Hesleden .....	3	3rd, April, 1924.
Houghton-le-Spring R.D	Dene Cottage, West Rainton .....	1	19th June, 1924.
Do. ....	Torrish Hill House, Leamside .....	1	19th June, 1924.



TABLE 49.—Continued.

District.	Situation.	No. of Dwellings.	Date of Closing Order.
Sedgefield R.D. ....	Crowtrees Cottage, Turisdale, Ferryhill..	1	2nd May, 1924.
Auckland R.D. ....	Nos. 2 & 3, Greenfield Cottages, Newfield..	2	2nd September, 1924.
Easington R.D. ....	Cabin situate on land near Messrs. R. Glass & Sons' Brickyard, Castle Eden .....	1	24th July, 1924.
Auckland R.D. ....	Robinson's Yard, Wheatbottom (un-occupied) .....	2	7th October, 1924.
Chester-le-Street R.D...	Kitchen of dwelling house at Front Street. Witton Gilbert .....	1	18th December, 1924.
Do. ...	9, Pottery Row, Lumley.....	1	18th December, 1924.
Bishop Auckland U.D...	Mill Yard, Town Head	2	3rd March, 1925.
Brandon & Byshottles U.D. ....	Nos. 1-5, Cock Houses, Browney Colliery....	5	2nd March, 1925.
Chester-le-Street R.D...	9, Stackyard, Lumley..	1	15th January, 1925.
Chester-le-Street R.D...	Nos. 4 & 8, Loves Row, Lumley .....	2	15th January, 1925.
Do. ...	6, Jobling's Yard, Lumley .....	1	15th January, 1925.
Do. ...	3, Half Moon Lane, Lumley .....	1	15th January, 1925.
Do. ...	10, Heron's Row, Lumley .....	1	15th January, 1925.
Do. ...	10, Paradise Row, Lumley .....	1	15th January, 1925.
Do. ...	149½, Front Street, Lumley .....	1	15th January, 1925.
Do. ...	15, Slater's Row, Lumley .....	1	15th January, 1925.
Do. ...	38, Front Street, Lumley .....	1	12th February, 1925.
Do. ...	8, "A" Pit, Ouston ...	1	12th February, 1925.
Easington R.D. ....	Shed situate at Easington Village .....	1	13th November, 1924.
Do. ....	Hut situate at Holy Cross Farm, Haswell	1	5th February, 1925.
Do. ....	Hut situate near Mill Hill Reservoir, Easington .....	1	5th March, 1925.
Do. ....	Huts situate at Blackhall Rocks .....	9	5th March, 1925.
Do. ....	Hut at Thornley Brick works, near Wheatley Hill.....	1	5th March, 1925.

TABLE 49.—Continued.

District.	Situation.	No. of Dwellings,	Date of Closing Order.
Sedgefield R.D. ....	5 dwelling houses situate at Kenmir's Buildings, Cornforth Lane, Coxhoe .....	5	5th March, 1925.
Brandon & Byshottles U.D. ....	17, High Street North, Langley Moor .....	1	2nd April, 1925.
Barnard Castle R.D. ...	Brookside, Staindrop ..	1	6th May, 1925.
Chester-le-Street R.D...	Bell Vernon Cottage, Waldrige .....	1	9th April, 1925.
Do. ...	Front Street, Witton Gilbert .....	1	4th June, 1925.
Houghton-le-Spring R.D	Penshaw Foundry, Penshaw .....	1	25th June, 1925.
Do. ...	Pontop Cottage, East Rainton .....	1	25th June, 1925.
Auckland R.D. ....	124, Front Street, West Auckland .....	1	7th July, 1925.
Do. ....	17, Wear Terrace, Witton-le-Wear.....	1	7th July, 1925.
Chester-le-Street R.D...	11, Heron's Row, Lumley .....	1	2nd July, 1925.
Do. ...	1-3, 5-9, and 14-17, Atkinson's Buildings, Birtley .....	12	2nd July, 1925.
Do. ...	3, Old Mill, Fatfield ...	1	2nd July, 1925.
Do. ...	Rear of Prospect Terrace, near Red Lion Inn, Eighton Banks (unoccupied)	1	2nd July, 1925.
Do. ...	Do. (occupied).....	1	2nd July, 1925.
Easington R.D. ....	Stables and Wooden Buildings .....	5	3rd September, 1925.
Do. ....	Shed, near Seventh Street, Horden .....	1	17th September, 1925.
Do. ....	Mary Street, Haswell...	1	17th September, 1925.
Houghton-le-Spring R.D	Plain Gardens Cottage, Silksworth .....	1	21st August, 1925.
Consett U.D. ....	24, Victoria Street, Consett .....	1	5th November, 1925.
Chester-le-Street R.D...	7, Gissey Pig Row, Lumley .....	1	17th December, 1925.
Do. ...	Front Street, West of Witton Farm, Witton Gilbert .....	5	17th December, 1925.
Do. ...	3, Cherry Hall, Lumley	1	17th December, 1925.
Do. ...	1 & 2, David's Fold, Lumley .....	2	17th December, 1925.
Do. ...	Rear of Littlefair's Buildings, Daisy Hill	1	17th December, 1925.
Easington R.D. ....	Little Thorpe (un-numbered) .....	3	10th December, 1925.

Although I have no exact information on the matter, I have reason to believe that quite a number of these houses are still occupied, although the closing orders made have become operative, owing to the difficulty of the tenants who would be displaced finding other house accommodation.

From my personal knowledge there are insanitary areas in the county, the houses in which ought to be cleared, but which cannot be tackled either owing to the cost involved or the lack of alternative accommodation for the displaced tenants; while there are also thousands of houses which, owing to defective construction or bad sanitary condition, might with advantage be dealt with under the provisions of the housing acts as unfit for habitation, but which cannot be closed owing to the present housing deficiency.



## EXCREMENT AND REFUSE DISPOSAL.

The following table gives the number and type of convenience in each sanitary district of the county both in 1921 and in 1925, and in addition information is given in the table for the year 1925 as to the conversions of ashpit-privies into ash-closets or water-closets, and of ash-closets into water-closets.

Table 50.

District.	Total number in District.						Ashpit-Privies converted into		Ash-Closets converted into Water-Closets.
	Water-Closets.		Ash-Closets.		Ashpit-Privies.		Ash-Closets.	Water-Closets.	
	1921	1925	1921	1925	1921	1925	1925	1925	1925
<b>URBAN.</b>									
Ham Borough.....	2791	3012	93	90	424	339	...	19	...
tlepool ".....	...	...	...	...	...	...	...	...	...
ow ".....	1020	2159	5818	4813	...	...	...	...	1030
kton ".....	7829	11712	258	...	4259	1648	...	1985	...
field Plain.....	789	1555	1009	1087	1201	445	1	24	...
ard Castle.....	861	973	53	40	63	29	...	6	1
fieldside.....	564	837	489	467	614	532	...	35	12
ingham.....	...	1151	...	85	...	378	...	197	28
op Auckland.....	2056	2130	748	738	516	415	6	40	2
ndon.....	1845	2862	3158	3016	942	587	<i>h</i> 2	254	47
ndon & Byshottles	369	670	3328	3316	236	160	...	22	...
ster-le-Street.....	1750	2172	1860	1739	61	34	...	5	17
sett.....	<i>c</i> 1481	2008	598	624	554	<i>g</i> 322	...	32	9
ok.....	336	664	1885	1851	67	35	...	20	...
ing.....	647	1024	4105	3845	20	10	...	6	...
ourn.....	348	4539	<i>e</i> 3865	<i>e</i> 15	39	24	...	...	...
ton-le-Hole.....	343	614	2715	2743	50	46	1	1	3
ughton-le-Spring	570	1085	1021	985	388	205	4	20	...
dgate.....	272	923	115	108	370	229	...	32	...
ton.....	957	1335	1418	1461	525	386	14	5	2
ham Harbour.....	1695	1973	756	741	94	94	...	7	...
ldon.....	711	999	<i>f</i> 2277	2033	...	119	...	34	6
athwick-on-Wear...	1405	1812	741	629	401	211	...	52	12
ennymcor.....	329	377	3000	3183	441	324	74	2	4
nhope.....	158	178	174	166	6	4	...	1	2
inley.....	1360	2013	2821	2749	718	554	...	28	7
hfield.....	263	408	1752	1795	226	60	...	12	2
w Law.....	40	45	476	550	193	88	23	2	...
ashington.....	...	1217	...	2286	...	214	...	7	16
ickham.....	438	895	3028	2086	...	...	...	...	9
llington.....	340	431	1626	1685	95	89	10	...	18
<b>RURAL.</b>									
ekland.....	<i>d</i> 878	1216	10412	10503	1153	937	33	35	4
ard Castle.....	495	559	1115	1132	1084	1085	8	3	...
ster-le-Street.....	4359	4751	9189	6527	2293	1747	1	50	14
llington.....	309	395	396	416	1389	1352	...	...	...
ham.....	...	651	...	5334	...	371	53	9	...
sington.....	438	2612	5839	10699	2401	2161	109	15	2
tlepool.....	133	179	362	371	140	108	6	1	...
ughton.....	285	625	4355	4516	488	330	34	2	1
hester.....	829	1832	3562	3590	1940	1703	43	132	11
gefield.....	692	1029	5095	5298	1153	865	4	89	11
th Shields.....	1245	1773	2717	2720	78	40	3	11	15
ekton.....	1207	651	1824	976	72	70	...	...	52
aderland.....	970	1709	4141	4142	344	299	...	20	13
ardale.....	152	177	111	118	595	880	...	4	...

*a* A Water-closet town. *b* 258 Pan closets (1921). *c* Includes 16 Pail closets.  
*d* Includes 6 Pail closets. *e* Described as Box closets. *f* Includes Ash-pit Privies (1921). *g* Includes 6 Pail closets. *h* Pail closets.

During 1925 there was increased activity in the conversion of ashpit privies into water-closets, but in most districts in the county there is still a large number of these objectionable structures. In only one district (Stockton Borough) does there appear to be any systematic action operating for the conversion of ashpit privies into water-closets. In Jarrow during 1925 it will be noted that over 1,000 ash-closets were converted into water-closets.

Speaking generally, the prevailing system of excremental disposal is still an ash-closet or small ash-privy. This particular sanitary convenience has a capacity of eight to twelve cubic feet, has a concrete dished floor raised above the level of the back street, and the walls are usually brick, lined with cement, with a stone or concrete riser. There is a hatch opening on to the back street through which the contents are emptied direct into the scavengers' cart. The seat is hinged and can be lifted up for the purpose of allowing ashes and house refuse to be deposited in the receptacle. As normally there is a great deal of ashes available, owing to the ample supplies of coal provided in colliery districts, there is in consequence a constant covering up of excretal matters and a good deal of deodorisation, but even though these small ash-privies are a great improvement on the old-fashioned open or covered ashpit-privy, they are undoubtedly productive of nuisance in warm weather, and especially when they are close to dwellings they tend to vitiate the air of the back yard and to lower the standard of health of those for whom they are provided. Where scavenging is neglected they tend to overflow and cause an additional nuisance.

As I stated early in this report when dealing with epidemic diarrhoea, it is most desirable that all district sanitary authorities should adopt an active policy in the substitution of water-closets for these small ash-privies and other conservancy methods of excrement disposal.

It is in my opinion very regrettable that some local authorities do not fully realise their duties so far as the public health



of their district is concerned, in that in some sanitary districts where proper sewers and an adequate water supply are available, the conversion of ashpit privies into ash-closets should have been permitted, as will be seen by reference to the sub-joined table. In the Spennymoor urban district, for instance, 74 ashpit privies were converted into ash-closets and only 2 into water-closets, and yet in this district there is an adequate water supply and proper sewers.

As regards the disposal of excremental and house refuse, there has undoubtedly been a very great improvement in the methods adopted during the last five years. In nearly every district the work is undertaken by employees of the district sanitary authority, and in many districts motor vehicles are used for the collection and removal of the contents of conveniences to the place of final disposal, which is usually a tip. In one or two districts with access to the sea the contents are largely disposed of at sea. Refuse destructors have been provided at Stockton, Hartlepool, Felling and Shildon for the disposal of the refuse of these districts, and in their annual reports a number of medical officers of health have recommended that refuse destructors should be established. At Stockton the proportion of refuse destroyed at the destructor is 35% of the total, and at Shildon about 80% of the whole of the refuse is burnt. The destructor at Felling is capable of dealing with 75 tons of refuse per day, but it has been unused since the commencement of the Great War as after the Armistice the cost of labour was prohibitive and the greater part of the refuse of the town is at present deposited in old disused quarries while other portions are led on to farms and ploughed in as manure. In his annual report for 1924 the medical officer of health for Felling specially referred to this question of refuse disposal and pointed out that a destructor is the most sanitary way of dealing with refuse and if the one provided at Felling were in use it would give employment to a number of unskilled labourers and be conducive to protecting the health of the children who can with difficulty be kept from sorting the tips for old jars, bottles, and any material which



can be handed over to the marine store dealer.

The method of disposal of domestic refuse on tips, especially where it contains excretal matter, is usually objectionable, especially for urban districts. Unless the tips are carefully selected they may cause a nuisance to people living in the neighbourhood or to persons passing near them, and it is difficult to obtain favourably situated tips within a reasonable distance, so far as cartage is concerned, of the populous portion of the area. Undoubtedly the best method of disposal of refuse is by burning. In some districts the cost of establishing and maintaining refuse destructors has been found to be very heavy, and I understand that in some of the smaller districts in other parts of the country their use has been discontinued, but in this county, where the domestic refuse contains a large proportion of combustible material there is no reason why, if the site is carefully selected and the destructor properly managed, the disposal of refuse by burning should not be as economical as any other available method.

In some districts scavenging and removal of house refuse, including the emptying of ash-privies, is carried out during the day. In districts where the water-carriage system is general, day scavenging may be free from serious objection, but the day scavenging of ash-privies must necessarily be productive of nuisance and is likely to be injurious to health.

### **DRAINAGE, SEWERAGE, AND SEWAGE DISPOSAL.**

Generally speaking, the houses in the administrative county are well provided with drains and sewers, but in a few of the older colliery villages the semi-circular open channels for drainage still exist, though, in the great majority of districts, these have been replaced by covered drains. Very few of the older houses in the county, colliery or otherwise, have a sink or drain opening within the dwelling, all waste waters being conveyed to trapped gullies in the yard or, where there is no yard, to similar gullies placed in the back street at intervals. In some districts where sinks are provided in dwelling-houses the waste pipe delivering over an outside

gully is not always trapped, and in such cases it necessarily follows that air is drawn up through the pipe owing to the difference of temperature in the house and the outside, which air becomes contaminated by the foul matters coating the waste pipe, and in consequence the lowering of the health of the inmates results. It is most important that all waste pipes from house sinks should be efficiently trapped and means provided for freeing the trap should it become blocked.

During 1925 the following improvements or extensions of sewers and sewage disposal works were commenced or completed.

Sewerage schemes delivering into the tidal waters of the River Tyne from the Blaydon and Felling urban districts have been approved by the Ministry of Health, and some of the work is now being carried out.

New sewage purification works consisting of settling tanks and percolating filters have been provided in the Leadgate urban district at Crookhall, and in the Lanchester rural district at Burnhope and Medomsley Edge. In the Durham rural district similar new works are in hand for Littleton and High Pittington.

Extensive improvements are being carried out in the Shildon urban district at the Shildon sewage works, where the capacity of the tanks and filters is being more than duplicated. In the Sedgfield rural district two large percolating filters have been provided at Trimdon Colliery and a new receiving tank at the Chilton Lane Pumping Station is in hand. In the Auckland rural district the Byers Green sewage works have been repaired and are again in operation. In the Spennymoor urban district new pumps have been provided at the Spennymoor sewage works.

In the Chester-le-Street rural district a sewerage scheme for connecting the sewers of Pelton Village, West Pelton,

Beamish, etc., to the new trunk sewer from Birtley to the tidal waters of the River Tyne has been sanctioned but not proceeded with owing to a difficulty in raising a loan. Schemes for dealing with the sewage from Biddick and Lumley were not approved.

The Darlington county borough have made application to the Ministry of Health for a loan to deal with the sewage from Harrowgate Hill; and the Easington rural district council have also made application for a loan to carry out a pumping scheme to convey the sewage of Thornley, Wheatley Hill, Shotton Colliery, etc., to the sea.

The County Council has been informed that steps are to be taken to purchase more land for the Crook (Escomb) Joint Sewage Farm; and that plans are in hand for another filter at Middleton-in-Teesdale.

The following is a short statement relative to sewers and sewage disposal works during the past five years:—

NEW SEWERS PROVIDED. Amongst other works carried out new trunk sewers have been completed from Wingate to the sea, from Birtley to Gateshead, and from Pelton Fell to Chester-le-Street. Barlow Village has been re-sewered, and a new tank sewer has been provided at Blackhall Mill.

Large sewers are being laid to the tidal waters of the River Tyne from Felling and Blaydon. Sewerage systems have been improved in the Durham and Easington rural districts.

Plans have been prepared for tapping the sewage of Pelton Village, West Pelton, and Beamish, into the new trunk sewer from Birtley to the River Tyne, and for taking the sewage from Biddick to the tidal waters of the River Wear; also for dealing with the sewage of Lumley at proposed new works, but the rural district council find a difficulty in getting



the necessary money for carrying out the work.

SEWAGE DISPOSAL WORKS PROVIDED. New sewage disposal works have been provided at Spennymoor, Leadgate (Crookhall), Knitsley, Medomsley Edge, Burnhope, Little-town and High Pittington, Houghton-le-Spring (Colliery Row), and for council houses at Langley Park, Tanfield Lea, and The Middles, Craghead.

SEWAGE DISPOSAL WORKS IMPROVED. The following sewage disposal works have been improved:—The contact material has been wholly or partly washed at Evenwood, Ouston, Rowlands Gill (Whiskey Bridge), Sacriston, Clough Dene, and renewed at Browney Colliery and Harrowgate Hill. At Leasingthorne a filter bed has been rebuilt. At Sedgefield beds have been drained, pumps repaired, and a small engine and more land provided. More land has been taken in at Cornforth Lane and Sedgefield, and at Trimdon two large filters have been provided. At Chilton Lane pumping station a new receiving tank is in hand. At Spennymoor two new pumps have been provided. At Shildon considerable extensions are being carried out. At Byers Green tanks have been repaired and works brought into operation again. Minor improvements have been effected at Stanhope, Frosterley, South Cleatlam, and at other places.

WORKS AFFECTED BY SUBSIDENCES. Many sewage works in the county are seriously affected by subsidences due to mining operations, as at Langley Park, Witton Gilbert, Glebe Sewage Farm, Bearpark, Ushaw Moor, Stanley, The Middles, Medomsley, etc.

WORKS INSUFFICIENT. Owing to the provision of new houses with baths and water-closets, and of water-closets in old houses, many of the sewage works are overloaded, as at Browney Colliery, Chilton Lane, Chester-le-Street, Sacriston, Stanley, Leadgate, Ouston, Craghead, Crook, etc. It is extremely difficult for local authorities to keep abreast of the requirements.

SEWERAGE SCHEMES CONTEMPLATED. It is contemplated to take the sewage from Thornley, Wheatley Hill, and Shotton to the sea, and to pump the Harrowgate Hill sewage into the Darlington sewers, and also to provide a new filter bed at Middleton-in-Teesdale.

SEWAGE DISPOSAL SCHEMES WANTED. No definite schemes have yet been submitted for dealing with sewage from the following places:—

Brandon & Byshottles U.D. (Browney Colliery and Waterhouses council housing scheme).

Chester-le-Street U.D. (Chester-le-Street and Pelton Fell).

Hetton U.D. and Houghton-le-Spring R.D. (Glebe Sewage Farm).

Leadgate U.D. and Lanchester R.D. (The north side of Leadgate, Bradley Cottages, and Bunker Hill).

Stanley U.D. (Stanley, Hustle Down, etc.).

Chester-le-Street R.D. (Edmondsley housing scheme).

Durham R.D. (West end of Sherburn Village).

though most of these matters have been receiving attention for some time.

REFUSE INTO STREAMS. In the higher reaches of the Wear and Tees (both potable streams) there is no public scavenging, and there and in the vicinity of Durham and Chester-le-Street, much objectionable refuse is frequently deposited in or on the banks of the streams within the flood line and eventually carried away. The powers of the County Council to deal with such matters are inadequate, and district councils, who sometimes are the actual offenders, generally do nothing to enforce the special powers they possess under the Public Health Acts Amendment Act, 1890 (Section 47).

BY-PRODUCT WORKS. Pollutions from by-product works and coalwashing plants are frequently recurring, and much of the good resulting from the purification of sewage is nullified.

Since the last Royal Commission on sewage and industrial pollutions issued their report, apparently little or nothing has been done to investigate the nature of the works required and how best to deal with the polluting liquids resulting from the dry distillation of coal and its products.

No legal proceedings can be taken against offenders without the sanction of the Ministry of Health, who, under Section 12 of the Rivers Pollution (Prevention) Act, 1876, are empowered to appoint a person of proper qualifications to issue a certificate that the means adopted for rendering harmless any polluting matters are the best or the only practicable and available under the circumstances of the particular case.

As it was desirable to know what were the views of such a person in order that progress may be made, one of the Ministry's inspectors, at the request of the County Council, visited several bye-product works in the county and inspected the effluents, but beyond being advised by the Ministry of Health that their responsible officers should visit other counties to see what was being done there, and to seek a conference with the works owners, nothing of a helpful character was subsequently suggested to the County Council.

At present some of the waste liquors are got rid of in old pit workings, or through large refuse heaps, in tanks and through strainers, but there is no scientific basis for the treatment adopted. It is simply a case of getting the effluent as free from tar and oil and as clear as possible, yet in spite of its appearance, it may, and probably often does, contain much poisonous matter.

It is a common experience to go to different works and find the tanks choked with solid matter and the passing liquors receiving little or no treatment, or to find the tanks already full and black water from the coalwashing plant passing into the stream without any treatment.



In this enlightened age those administering the Rivers Pollution Prevention Acts should have the assistance of the best advice the Ministry of Health, after comprehensive enquiry, can give, as the whole question of treatment is difficult and appears to be largely, though not wholly, a matter of cost.

### **STREETS.**

An undoubted factor in improving health has been the advent of motor transport, with, as a result, the improved paving of roads and streets with impervious material, at the same time there has been a diminution of horse traction, and in consequence much less deposit of manure on the street surfaces.

There has also during recent years been considerable improvement in the paving and channelling of back streets in this county, and also in the paving of back yards with impervious material.

A number of rural district authorities in the county have obtained orders for the putting into force of the Private Street Works Act, 1892, in the populous portions of their districts.

In their annual reports many medical officers of health have from time to time called attention to the importance of the paving of back yards and back streets in the interests of the health of the district, and it is unquestionable that the paving of yards and the space about dwellings, and also the making, paving and channelling of back streets, is a direct encouragement to householders to adopt a higher standard of cleanliness with beneficial results.

### **COMMON LODGING HOUSES.**

The County Council has no direct control of common lodging houses. In many sanitary districts in the county there are no such lodging houses. Many of those which do exist are unsatisfactory as regards construction and lavatory and other sanitary accommodation, but there is evidence that

during the last few years better supervision by the district sanitary authorities has been enforced.

I have on many occasions pointed out that the overcrowding of dwellings in this county is often increased by the taking in of lodgers, and that the establishment of municipal lodging houses is desirable, both from a moral and social standpoint, and if properly administered, I think they would be a financial success.

### **SLAUGHTER-HOUSES.**

In no district in the administrative county is there a public slaughter-house. Many of the private slaughter-houses in use are badly situated in relation to dwelling houses and of unsatisfactory construction, and in consequence the care of the animals before slaughter in many instances cannot be satisfactory and there can be no adequate supervision of the methods of slaughter employed. In some cases slaughtering actually takes place in the butcher's shop. It is a matter of some interest that the humane slaughtering of animals has in several districts aroused public attention, and I have personally received numerous communications on the matter from private individuals and labour organisations.

The Public Health (Meat) Regulations, 1924, should have a beneficial effect both in respect of the more efficient inspection of meat and the detection of disease in animals slaughtered, but so long as the present system of slaughter-houses is permitted to continue it is doubtful if these Regulations can be efficiently enforced in these directions, though the requirements as to the protection from contamination of meat and other food exposed for sale should lead to considerable improvement if properly administered.

Many medical officers of health in their annual reports recommend the provision of a public abattoir in their district.

The County Council has no power or control over slaughter-houses.

## DAIRIES, COWSHEDS AND MILKSHOPS.

In many districts the conditions under which milk is produced and stored in this county are unsatisfactory. Many of the cowsheds, particularly in the agricultural districts, are of poor construction, but what is more serious, they are frequently badly lighted and ventilated, ill-paved, unprovided with a proper water supply, and not kept in a sufficiently cleanly condition. Cleanliness both of the cow and of the milkers during the milking process is frequently neglected, and up to the present undoubtedly there has been insufficient supervision of the health of cows producing milk, with the result that a great deal of milk containing the active germ of tuberculosis is supplied to the public. During the last few years this matter has received a considerable amount of both public and official attention and important legislation has been passed, notably, the Milk and Dairies (Amendment) Act, 1922, and the Tuberculosis Order, 1925, while the Milk and Dairies (Consolidation) Act, 1915, the operation of which had been postponed, came into force on the 1st September, 1925. Under these acts and orders important duties are placed on county councils.

Under the Milk and Dairies (Amendment) Act, 1922, the County Council are the authority to give the necessary certificates in respect of certain graded milks, but it is rather remarkable that up to the end of 1925 only two applications for the sale of Grade A. milk had been made to the County Council, and one of these applications had to be refused.

Under the Tuberculosis Order, 1925, the County Council is the authority in the administrative county for dealing with tuberculous animals, and through its responsible committee the Council on the Order coming into force at once took the necessary steps to give effect to it. For the purposes of the Order the county veterinary inspectors under the Contagious Diseases of Animals Acts were appointed, and the same officers were appointed by the County Health Committee as veterinary inspectors in respect of the Milk and Dairies



(Consolidation) Act. Up to the end of the year 1925, 190 suspected animals were dealt with and 159 slaughtered, compensation in each case being given in accordance with the requirements of the Order.

On my recommendation the Agricultural Committee also entered into an arrangement with the Council of the College of Medicine, Newcastle-on-Tyne, for microscopical and biological examinations required under the Order, the fee payable to be 5/- per sample for the microscopical examination and 15/- per sample for the inoculation test.

The Milk and Dairies (Consolidation) Act, 1915, contains very useful provisions, and important obligations are placed on the medical officer of health of a county in respect of the prevention of the sale of tuberculous milk, and that officer also is empowered, either himself or through any person provided with, and if required, exhibiting an authority in writing from him, to take for examination samples of milk at any time before it is delivered to the consumer, either under the Sale of Food and Drugs Acts, 1875 to 1907, or otherwise. The County Council has since authorised me to submit samples taken by me, or by my authority, under Section 8 of the Act, for analysis or for bacteriological examination.

In respect of the Tuberculosis Order, 1925, the County Council did not agree to the suggestion made by the Minister of Agriculture and Fisheries, made in his circular letter (No. 13) that their veterinary inspectors should themselves make microscopical examinations of milk and other specimens for the purpose of ascertaining or otherwise the presence of the tubercle bacillus, as the Council was satisfied that it was not possible by the most careful microscopical examination, even by expert bacteriologists, to ascertain definitely whether a sample of milk or any other specimen contains tubercle bacilli, for such organisms may escape detection under the microscope though present, and on the other hand there are several other acid fast bacilli which by microscopical examination alone cannot be distinguished from the bacillus of tuberculosis.

In a report made by me on the Milk and Dairies (Consolidation) Act, 1915, and the Tuberculosis Order, 1925, I suggested that the Act and the Order should be worked together for the purpose of dealing with advanced tuberculous bovine animals and of preventing the use for human consumption of tuberculous milk, as in my opinion these ends would be best accomplished by the efficient administration of the Order, in which case it would not usually be necessary to take action under Section 3 of the Act with the object of prohibiting the supply of milk from a dairy or any particular cow. For this purpose there is the closest co-operation between the responsible committees of the County Council.

Under the Milk and Dairies (Consolidation) Act, 1915, the Ministry of Health is empowered to issue orders dealing with important matters contained in the Act, but up to the end of the year 1925 no such orders had been issued.

Although the important subject of milk purity is receiving increased public attention and many milk producers are realising the importance of proper housing for cattle and of adopting clean methods in milk production, as is evident by the increasing number of entrants to clean milk competitions, I am not satisfied that under our present methods of sanitary administration either the Act of 1915 or any orders made under that Act will in general be effectively enforced, though I sincerely hope that my present view will prove to be incorrect. It is perfectly clear, however, that for the necessary supervision to be made by the County Council to enable them to enforce powers conferred on them under the Acts of 1922 and 1925 it will be necessary to appoint at least two whole-time experienced inspectors, who would of course work in co-operation with the county veterinary inspectors.

A point of general interest, and of special interest to milk producers, is that cleanliness in the production and handling of milk is much more important than the actual structure of the cowshed and dairy. This fact has been emphasised by some of the results of clean milk competitions, prizes having been obtained in respect of milk from cows housed in sheds which . .

are certainly not of modern construction. Provided a shed is well-lighted and ventilated, the ceiling, walls, and floors kept clean, with frequent and regular removal of manure, attention also being given to the cleanliness of the cows and milkers at the time of milking, the actual structure of the cowshed, whether of stone, brick or wood, is of secondary importance.

### FOOD AND DRUGS ACTS.

The County Council administer these Acts for the whole of the administrative county with the exception of the Borough of Hartlepool. The local officials of Jarrow and Stockton are responsible for the taking of the samples in these boroughs, but they are submitted to the County Analyst. Neither the County Health Committee nor the Medical Officer of Health are in any way responsible for the taking of samples under the Acts, the responsible officer being the Chief Inspector, who reports direct to the Local Government Committee. I am, however, frequently consulted either by the responsible committee or its Chief Officer on medical and public health questions arising in connection with samples taken under the Food and Drugs Acts.

In the following table are given the number of samples examined, with the proportion found not genuine or below standard during each quarter of the year 1925, while in the next table similar information is given for each of the last five years.

**Table 51.**

1925.	Samples Examined.	Not Genuine or below Standard.	Proportion. %
1st Quarter...	412	25	6·1
2nd Quarter...	375	44	11·7
3rd Quarter...	351	38	10·8
4th Quarter...	408	33	8·1
Total.....	1,546	140	9·0



Table 52.

Year.	Samples Examined.	Not Genuine or below Standard.	Proportion. %
1921	1,259	138	10·9
1922	1,288	96	7·5
1923	1,344	120	8·9
1924	1,450	137	9·4
1925	1,546	140	9·0

During 1925, 579 samples of milk were taken for analysis under the Acts, of which 123, equal to 21·2%, were found to be not genuine or below standard.

The following table gives the number of milk samples submitted for analysis under the Food and Drugs Acts together with the number and percentage which were found not genuine or below standard during the last five years.

Table 53.

Year.	Milk Samples Examined.	Not Genuine or below Standard.	Percentage.
1921	529	160	30·2
1922	389	70	17·9
1923	527	107	20·3
1924	457	107	23·4
1925	579	123	21·2

These figures show a very high percentage of unsatisfactory milk samples and, having regard to the comparatively small risk of detection incurred by a dealer adulterating milk, and also the small and inadequate penalties frequently imposed by magistrates in cases where convictions are obtained, it is probable that a dishonest milk dealer can considerably augment

his income by adding water to, or abstracting fat from, the milk he supplies to his customers. Seeing that milk is a food on which invalids and young children are largely dependent, I hold a strong opinion that heavy and salutary penalties should be imposed on milk dealers who are convicted of adulterating the milk which they supply to their customers.

### **FOOD PRESERVATIVES.**

During 1925 legislation was passed giving effect to many of the recommendations of the Departmental Committee on the use of preservatives and colouring matters in food, and from a public health standpoint it is very satisfactory that the use of preservatives is to be strictly limited in future and is to be prohibited in cream and many other foodstuffs. It is especially satisfactory that the use of boric acid and borates will no longer be permitted.

### **PUBLIC HEALTH (MILK & CREAM) REGULATIONS, 1912 & 1917.**

The following table gives particulars of the information supplied to the Ministry of Health under the above Regulations. As in the near future it will be illegal to add preservatives to either milk or cream the compilation of this table will in the future be unnecessary.

Table 54.

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS,  
1912 AND 1917.

1. Milk and Cream not sold as Preserved Cream.

	(a) Number of samples examined for the presence of a preservative.	(b) Number of samples found to contain pre- servative.
Milk .....	579	...
„ Separated and Skimmed.....	1	...
„ Condensed.....	7	...
„ Evaporated.....	4	...
„ Dried.....	3	...
„ Skimmed (Condensed).....	6	...
Cream.....	6	...
„ Tinned.....	2	...

2. Cream sold as Preserved Cream.

- (a) (i) Correct statements made ..... 12  
(ii) Statements incorrect ..... None.

12

(iii) Percentage of preservative found

·15%	·28%	·26%	·17%
·15%	·25%	·30%	·18%
·19%	·30%	·25%	·32%

(iv) Percentage stated on statutory label...Boric acid not exceeding 0·4%.

(b) Determination made of milk fat in cream sold as Preserved Cream.

- (i) Above 35% ..... 12  
(ii) Below 35% ..... None.

12

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article v. (i) and the proviso in Article v. (ii) of the Regulations have not been observed .....

2

(d) Particulars of each case in which the Regulations have not been complied with and action taken.

Two cases of improper labelling. Packers cautioned and labels corrected.

3. Thickening substances.

- (a) Any evidence of their addition to cream or to Preserved Cream ..... None.  
(b) Action taken where found ..... None.



**MINISTRY OF HEALTH INQUIRIES.**

The following inquiries relating to public health matters were held by the Ministry of Health during 1925 in the administrative county.

With regard to similar inquiries held in the previous year in respect of which a decision had not been arrived at by the end of the year, I have now to report that the loan applied for by the Houghton-le-Spring U.D.C. for works of sewerage amounting to £780 was not granted, and that a decision is still pending in respect of the application for a loan of £6,000 by the Chester-le-Street R.D.C. for sewerage works in the township of Great Lumley.

Table 55.

1925.	Applicant.	Amount	Purpose.	Result.
5th Feb.	Chester-le-Street Joint Hospital Board .....	£14,000	For the purchase of the site of their Isolation Hospital and certain adjoining land for the extension of the hospital and the furnishing of such extension.	Sanctioned in respect of the purchase money, etc. (£1,575), and the erection of a new ward (£12,085). Amount for furniture left over until completion of building.
27th Jan.	Durham R.D.C. ...	£5,515	For works of sewerage and sewage disposal for the parish of Pitlington.	Sanctioned.
2nd April	do.	£1,260	For works of sewerage in the parish of Framwellgate Moor.	Sanctioned.
8th April	Shildon U.D.C. ...	£12,000	For the extension of their sewage disposal works, including the execution of works in the township of Middridge Grange within the Auckland R.D.	Sanctioned.
12th May	Felling U.D.C.....	£11,000	For the construction of an outfall sewer from Sunderland Road, to the River Tyne.	Sanctioned.
19th June	Blaydon U.D.C. ...	£8,500	For works of storm water drainage.	Sanctioned.
19th Aug.	Chester-le-Street R.D.C. ....	£4,716	For excess expenditure incurred on the construction of an outfall sewer for the township of Birtley in respect of which a loan of £23,500 was sanctioned on the 19th September, 1922:	Sanctioned.
2nd Sept.	Easington R.D.C...	£40,000	For works of sewerage for the parishes of Thornley, Shotton & Wingate.	Decision pending.
2nd Dec.	Darlington C.B. ...	£1,500	For works of sewage disposal.	Sanctioned.

### COUNTY COUNCIL INQUIRIES.

There were no inquiries by the County Council during 1925 affecting public health matters.

TABLE A.

TABLE GIVING POPULATION, BIRTH-RATE, DEATH-RATE, &C., WITHIN THE URBAN DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

URBAN DISTRICTS.	Medical Officer of Health.	Area in Acres.	Registrar General's Population 1925.	Births	Deaths.	Birth-rate	Death- rate.	Zymotic death- rate.	Infant Mortality rate per 1,000 Births.	Phthisis death- rate.	Total Tubercu- losis death- rate.	Lung Diseases death- rate.	Number of Cases Notified.	Hospital accommo- dation	Number of cases removed to Isolation Hospital.	Deaths occurring outside District included.	Deaths occurring within District excluded
<b>BOROUGHES.</b>																	
Durham.....	R. Stuart, M.R.C.S. ....	1066	17380	364	245	20'94	14'09	0'69	85	0'92	1'32	2'36	127	Yes.	72	15	101
Hartlepool.....	W. McKendrick, M.D., D.P.H....	735	21940	564	331	25'71	15'09	0'77	119	1'00	1'09	3'92	76	Yes.	33	49	32
Jarrow.....	P. A. Dormer, D.P.H. ....	783	36540	902	567	24'68	15'52	1'18	116	2'11	2'68	3'53	612	Yes.	56	141	7
Stockton.....	G. C. M. McGonigle, M.D., D.P.H.	5465	68000	1646	974	24'21	14'32	0'94	88	0'91	1'21	3'22	403	Yes.	217	29	40
<b>URBAN DISTRICTS.</b>																	
Annfield Plain.....	W. M. Morison, L.R.C.P., D.P.H.	3489	17070	423	214	24'78	12'54	0'99	125	0'50	0'76	1'93	367	Yes.	171	35	...
Barnard Castle.....	C. H. Welford, M.D.....	560	4848	76	59	15'68	12'17	0'21	39	0'41	0'62	1'44	27	Yes.	11	3	10
Benfieldside.....	John Murray, M.B., Ch.B.....	1525	9097	319	117	35'07	12'86	1'21	69	0'77	1'09	2'42	240	Yes.	113	12	23
Billingham .....	T. J. Kirk, M.B.....	3036	9187	197	83	21'44	9'04	0'22	86	0'33	0'76	1'96	195	Yes.	66	21	4
Bishop Auckland.....	T. A. McCullagh, M.R.C.S....	691	14340	470	179	32'77	12'48	1'18	74	0'77	1'05	2'30	41	Yes.	28	15	66
Blaydon.....	H. Morrison, M.D., B.Hy., D.P.H.	9314	35370	744	399	21'03	11'28	0'95	93	0'85	1'05	2'40	836	Yes.	595	69	10
Brandon & Byshottles	Henry Smith, M.D.....	6669	19600	470	203	23'99	10'36	0'82	87	0'61	0'66	1'53	122	Yes.	107	26	4
Chester-le-Street.....	S. K. Young, M.D., B.Hy., D.P.H.	2659	17830	404	224	22'59	12'53	1'12	104	0'45	0'84	2'13	135	Yes.	79	22	46
Consett.....	J. G. Walker, M.R.C.S., L.R.C.P., D.P.H.....	1511	13120	319	179	24'31	13'64	0'91	128	0'69	0'76	3'05	183	Yes.	129	32	5
Crook.....	Robert Steel, L.R.C.P.....	4056	13310	272	131	20'44	9'84	0'53	88	0'98	1'05	1'73	82	Yes.	61	18	2
Felling.....	W. E. Peacock, M.D., B.Hy., D.P.H.....	2684	27910	651	392	23'32	14'05	1'07	127	1'11	1'65	2'76	336	Yes.	108	65	3
Hohburn.....	E. E. Norman, M.B., B.S., D.P.H.	1241	25980	669	371	25'75	14'28	2'27	102	1'15	1'66	2'73	363	Yes.	120	70	3
Hetton-le-Hole.....	R. Macleod, M.B., D.P.H.....	1617	18220	459	260	25'19	14'27	1'65	122	1'21	1'76	2'14	257	Yes.	88	39	—
Houghton-le-Spring..	W. Barkes, M.D.....	1551	11170	318	153	28'47	13'69	1'34	101	0'98	1'16	2'68	145	Yes.	47	17	16
Leadgate.....	John Murray, M.B., Ch.B.....	1836	6078	229	88	37'68	14'48	1'15	109	0'16	0'66	2'14	106	Yes.	92	11	—
Ryton.....	Andrew Smith, M.D.....	5169	15600	320	145	20'51	9'29	0'70	75	0'26	0'51	1'09	249	Yes.	147	22	5
Seaham Harbour.....	Luke G. Dillon, M.D.....	1101	18650	558	237	29'92	12'71	1'50	99	0'97	1'34	2'63	169	Yes.	24	33	5
Shildon.....	R. W. Smeddle, M.B. ....	1066	14660	306	198	20'87	13'51	0'82	101	0'61	0'89	2'39	40	Yes.	26	30	4
Southwick-on-Wear...	John J. Carruthers, M.B. ....	856	15870	405	227	25'93	14'30	1'13	91	1'26	1'95	3'65	276	Yes.	28	60	—
Spennymoor.....	S. V. Tinsley, M.B.....	3388	18830	474	243	25'17	12'90	1'84	112	0'90	1'27	1'85	83	Yes.	66	30	5
Stanhope.....	John Gray, M.B. ....	216	1884	29	20	15'39	10'62	0'53	35	1'06	1'06	1'06	13	Yes.	7	1	9
Stanley.....	E. G. D. Benson, L.R.C.P., D.P.H.....	3593	27540	676	340	24'55	12'35	1'02	126	0'80	0'94	2'80	328	Yes.	210	39	—
Tanfield.....	E. G. D. Benson, L.R.C.P., D.P.H.....	4779	10730	211	118	19'66	11'00	0'74	104	1'03	1'30	0'93	265	Yes.	118	13	12
Tow Law.....	J. H. Naismith, M.D. ....	477	4449	88	35	19'78	7'87	...	34	0'67	0'67	1'12	3	Yes.	1	3	1
Washington.....	W. E. Peacock, M.D., B.Hy., D.P.H.....	5026	17920	436	222	24'33	12'38	1'34	108	0'95	1'28	2'46	362	Yes.	77	25	2
Whickham.....	F. T. Foster, M.D.....	5914	20580	426	259	20'70	12'59	1'36	134	1'51	1'80	1'16	819	Yes.	92	46	5
Willington.....	R. E. Brown, L.R.C.P. ....	3793	9847	162	92	16'45	9'34	0'51	62	0'61	0'91	0'61	50	Yes.	20	13	4





TABLE GIVING THE DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES WITHIN THE URBAN DISTRICTS OF THE ADMINISTRATIVE COUNTY OF DURHAM.—1925.

URBAN DISTRICTS.	DEATHS AT SUBJOINED AGES.										DEATHS FROM SUBJOINED CAUSES.																																											
	At all ages.	Under 1 Year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Smallpox.	Scarlet Fever.	Diphtheric Group.	Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea and Enteritis.		Typhoid Fever.	Erysipelas.	Influenza.	Cancer, Malignant Disease.	Rheumatic Fever.	Appendicitis and Typhilitis.	Other Specific Diseases.	Pituitary (Pneumonia).	Tuberculosis (Pneumonia).	Tuberculosis (Meningitis).	Alcoholism.	Cirrhosis of Liver.	Nephritis and Bright's disease.	Congenital Malformation.	Premature Birth.	Genital debility.	Marasmus Atrophy.	Lap at Birth.	Other accidents (poisoning, suffocation, &c.).	Parturition.	Atelectasis.	Meningitis (not Tuberculous).	Convulsions.	Gastritis.	Syphilis.	Rickets.	Organic Heart Disease.	Violent or Accidental Deaths, including Suffocation, Overexertion, Burns & Scalds.	Suicide.	Other defined Diseases.	Arterio-Sclerosis, &c.	Diseases ill-defined or unknown.					
																Under 2	Over 2																																					
Durham.....	245	31	9	9	7	11	22	61	95	...	1	1	...	5	...	5	1	...	3	1	1	24	1	3	1	16	2	4	1	23	13	5	1	1	3	9	9	1	2	3	1	...	2	5	4	...	...	47	11	1	36	12	4	
Hartlepool.....	331	67	22	22	14	18	39	71	78	...	1	2	...	6	2	6	...	2	1	2	6	30	4	1	3	22	1	1	...	33	41	12	3	...	...	10	12	5	...	3	...	2	1	6	3	4	4	1	45	14	1	55	37	14
Jarrow.....	567	105	43	30	30	40	73	111	135	...	...	...	...	20	14	9	...	1	1	1	9	36	1	3	1	77	8	9	4	53	32	42	4	1	1	17	28	8	...	2	1	6	3	4	4	1	83	32	2	132	75	12		
Stockton.....	974	145	58	50	44	48	124	228	277	...	2	3	1	36	2	20	10	...	2	2	58	64	2	6	6	62	6	8	...	11	13	7	4	...	1	6	24	4	1	5	...	1	5	1	...	...	23	5	...	35	21	...		
Annfield Plain.....	214	53	12	10	15	13	16	35	60	...	2	2	...	4	2	7	1	1	...	...	5	8	1	...	1	10	1	2	...	1	4	...	3	1	...	1	3	2	...	...	...	...	2	...	...	...	10	2	1	5	8	2		
Barnard Castle.....	59	3	1	1	4	3	6	13	28	...	...	...	...	...	...	1	...	...	1	...	1	7	1	...	1	2	...	...	1	4	...	3	1	...	1	3	2	...	...	...	...	...	...	...	10	5	...	19	10	1				
Benfieldside.....	117	22	10	3	6	7	13	24	32	...	...	3	...	5	...	3	...	...	1	1	2	10	1	1	...	7	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	5	1	14	6	2					
Billingham .....	83	17	2	1	2	5	15	20	21	...	...	1	...	...	1	...	1	1	...	...	1	6	...	...	1	3	...	1	3	6	3	8	1	...	...	5	4	...	2	...	2	...	...	...	...	15	9	...	21	20	3			
Bishop Auckland.....	179	35	13	9	1	13	19	27	62	...	...	...	...	11	3	3	1	...	1	...	2	14	...	...	2	11	1	2	1	12	13	8	3	...	...	3	12	1	...	2	...	...	...	...	...	15	9	...	21	20	3			
Blaydon.....	399	68	36	29	22	18	42	85	99	...	4	1	...	19	3	7	6	1	1	1	1	30	...	2	1	30	5	2	...	18	50	17	...	...	...	5	12	3	1	1	2	2	1	...	...	...	32	6	2	29	18	3		
Brandon & Byshottles	203	41	11	9	7	7	26	35	67	...	...	...	...	11	2	3	1	1	1	1	2	15	...	2	1	12	1	...	...	9	18	3	1	...	...	3	16	...	...	...	1	...	3	...	1	...	21	11	1	22	32	2		
Chester-le-Street.....	224	42	14	16	9	8	19	41	75	...	1	1	...	10	7	1	3	2	...	1	5	23	...	1	2	8	3	2	2	20	15	3	1	...	...	1	6	11	2	1	1	1	3	...	...	...	13	7	1	27	18	2		
Consett.....	179	41	9	7	5	7	21	33	56	...	1	2	...	2	...	7	...	...	3	1	10	5	...	...	2	9	...	...	1	16	17	6	2	...	...	1	6	...	...	...	5	2	1	1	6	5	1	16	20	1				
Crook.....	131	24	8	4	4	5	19	29	38	...	...	3	...	1	3	...	1	...	...	...	2	8	1	...	...	13	...	...	1	6	6	11	3	...	...	16	28	4	...	5	1	3	4	6	2	...	29	11	1	42	30	9		
Felling.....	392	83	25	15	18	30	48	66	107	...	1	2	...	13	6	8	5	...	3	...	10	23	...	...	4	31	5	4	6	43	21	12	3	1	...	16	24	1	...	4	...	1	2	1	...	1	27	16	2	40	22	5		
Hebburn.....	371	78	33	32	22	19	39	81	67	...	2	1	1	31	16	8	1	...	2	1	2	28	1	2	2	30	5	5	2	20	38	11	6	...	1	9	24	1	...	4	...	1	11	...	...	1	1	14	6	1	38	17	1	
Hetton-le-Hole.....	260	56	22	18	12	12	33	48	59	...	1	1	1	12	7	8	2	1	...	...	7	22	1	1	4	22	3	4	3	15	14	9	3	...	...	3	21	...	...	4	1	1	1	...	1	1	1	...	10	7	...	12	18	1
Houghton-le-Spring...	153	32	14	10	10	2	14	28	43	...	...	2	...	2	6	5	...	...	...	...	8	13	...	...	1	11	...	...	2	13	10	7	...	...	...	4	15	2	...	...	...	...	1	...	1	...	4	3	...	12	7	4		
Leadgate.....	88	25	5	5	5	5	5	21	17	...	1	1	1	3	...	1	...	1	...	3	9	...	...	1	1	...	2	1	7	3	3	2	...	1	3	10	2	...	...	...	...	4	...	...	...	15	9	1	22	23	3			
Ryton.....	145	24	3	7	11	5	20	28	47	...	2	...	...	3	5	1	1	...	1	1	4	11	2	...	...	4	2	1	1	7	8	2	1	...	...	2	9	...	...	...	...	...	...	...	...	16	11	...	15	25	1			
Seaham Harbour.....	237	55	29	10	10	14	26	44	49	...	...	2	1	12	1	12	...	...	...	...	2	17	...	...	2	18	2	3	2	22	11	16	3	...	...	10	27	3	1	1	...	...	1	...	...	1	20	4	3	29	26	3		
Shildon.....	193	31	15	9	4	6	13	55	65	...	...	...	...	12	...	...	...	...	...	...	8	16	...	1	2	9	1	2	1	31	2	2	...	...	1	1	14	3	...	2	...	...	...	...	...	11	7	1	22	26	1			
Southwick-on-Wear...	227	37	21	18	17	17	13	36	68	...	...	2	...	5	3	8	2	...	...	3	14	1	3	3	20	7	3	1	26	14	17	1	...	1	7	12	2	...	...	1	2	1	3	2	...	17	8	...	43	12	4			
Spennymoor.....	243	53	14	13	13	15	28	40	67	...	2	...	1	9	15	8	...	2	...	...	5	19	1	...	2	17	1	1	5	22	6	2	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	3	4	...			
Stanhope.....	20	1	...	3	...	...	2	4	10	...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	1	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	19	9	...	43	32	5			
Stanley.....	340	85	21	25	11	22	31	60	85	...	2	2	1	13	1	9	5	3	...	...	1	28	...	...	1	22	4	...	...	35	33	8	5	...	...	6	37	1	1	7	4	...	1	2	...	...	1	...	16	2	...	20	12	3
Tanfield.....	118	22	2	3	9	5	12	29	36	...	1	3	...	3	...	1	...	...	...	...	4	11	...	1	...	11	1	1	...	6	2	2	...	1	...	1	1	1	...	...	...	...	2	...	...	1	...	...	8	6	1			
Tow Law.....	35	3	...	...	2	1	2	7	20	...	...	...	...	...	...	...	...	...	...	...	5	12	1	1	...	17	4	2	...	15	18	10	3	...	...	1	5	17	1	...	1	...	...	1	1	...	1	11	6	1	28	24	2	
Washington .....	222	47	13	12	10	17	22	42	59	...	3	1	...	4	8	8	1	...	...	...	5	15	2	1	5	31	2	1	3	14	5	5	3	...	1	8	19	6	2	1	2	1	5	...	...	...	21	15	...	23	32	2		
Whickham.....	259	57	10	8	15	17	35	54	63	...	1	1	...	15	9	2	1	...	...	1	1	5	...	...	...	6	2	1	...	1	1	4	1	...	...	2	6	...	...	2	...	...	...	...	...	2	7	3	1	24	12	1		
Willington.....	92	10	4	4	10	5	10	19	30	...	...	...	...	4	1	...	...	...	...	...	175	530	21	29	50	537	68	63	47	592	483	305	71	3	17	195	478	69	12	65	22	48	71	41	17	10	594	248	24	927	674	105		
TOTAL.....	7,305	1,393	479	392	349	395	807	1,475	2,015	...	29	37	7	271	117	151	43	17	28	14	175	530	21	29	50	537	68	63	47	592	483	305	71	3	17	195	478	69	12	65	22	48	71	41	17	10	594	248	24	927	674	105		

Atelectasis.	Meningitis (not Tuberculous).	Convulsions.	Gastritis.	Syphilis.	Rickets.	Organic Heart Disease.	Violent or Accidental Deaths, including Suffocation Overlaying, Burns & Scalds.	Suicide.	Other defined Diseases.	Arterio-Sclerosis, etc.	Diseases ill-defined or unknown.
1	1	...	...	2	1	17	5	1	39	32	6
...	2	5	4	...	...	47	11	1	36	12	4
1	6	3	4	4	1	45	14	1	55	37	14
4	3	3	5	1	1	83	32	2	132	75	12
...	1	5	1	..	...	23	5	...	35	21	...
...	...	2	...	...	...	10	2	1	5	8	2
...	...	4	1	...	...	10	5	...	19	10	1
...	2	..	...	...	...	5	5	1	14	6	2
...	4	...	1	...	...	15	9	...	21	20	3
...	5	9	4	1	...	28	13	1	53	37	7
2	2	1	...	...	...	32	6	2	29	18	3
1	...	3	..	1	...	21	11	1	22	32	2
1	1	3	...	..	..	13	7	1	27	18	2
...	...	5	2	1	1	6	5	1	16	20	1
1	3	4	6	2	...	29	11	1	42	30	9
..	1	2	1	...	1	27	16	2	40	22	5
1	11			1	1	14	6	1	38	17	1



TABLE B.

TABLE GIVING POPULATION, BIRTH-RATE, DEATH-RATE, &C., WITHIN THE RURAL DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

RURAL DISTRICTS.	Medical Officer of Health.	Area in Acres.	Registry District Population 1925.	Births.	Deaths.	Birth-rate	Death- rate.	Zymotic death- rate.	Infant Mortality- rate per 1000 Births.	Phthisis death- rate.	Total Tuber- culosis death- rate.	Lung Diseases death- rate.	Number of Cases Notified.	Hospital accommo- dation	Number of cases removed to Isolation Hospital.	Deaths occurring outside District <sup>a</sup> included.	Deaths occurring within District excluded
Auckland .....	H. G. Donald, M.B., Ch.B., D.P.H.	57334	62450	1406	726	22.51	11.63	0.77	90	0.61	0.83	1.79	212	Yes.	161	72	13
Barnard Castle .....	E. S. Hawthorne, F.R.C.S., D.P.H. ....	79961	11620	209	123	17.99	10.59	0.09	91	0.69	0.77	1.46	41	Yes.	36	19	2
Chester-le-Street ..	T. O. Penfold, M.B., D.P.H.	26935	57050	1440	792	25.22	13.88	1.61	113	0.79	1.03	2.26	713	Yes.	256	115	14
Darlington .....	Robert H. Meikle, M.B. ....	41361	9992	151	129	15.11	12.91	0.10	86	0.80	1.10	2.00	65	Yes.	13	16	8
Durham .....	A. T. Harrison, L.S.A. ....	30871	33050	789	396	23.87	11.98	0.82	98	0.82	1.00	2.15	156	Yes.	138	51	28
Easington .....	W. Grant M.B., B.Hy., D.P.H.	37018	82630	2265	986	27.41	11.93	1.09	107	0.73	0.99	2.36	1152	Yes.	302	131	17
Hartlepool.....	G. S. Mather, M.R.C.S. ....	19090	3937	86	38	21.84	9.65	0.51	58	1.02	1.02	1.78	18	Yes.	2	4	233
Houghton .....	F. R. V. Langenberg, M.B. ....	13192	29270	725	392	24.77	13.39	0.96	119	0.99	1.43	2.43	473	Yes.	203	48	9
Lanchester.....	J.G. Walker, M.R.C.S., L.R.C.P., D.P.H. ....	50645	36090	805	404	22.31	11.19	0.69	96	0.69	1.08	2.11	518	Yes.	268	33	43
Sedgefield.....	C. Basan, M.D. ....	45006	38810	905	424	23.32	10.93	0.77	82	0.95	1.26	1.88	183	Yes.	106	48	150
South Shields .....	W. Armstrong, L.R.C.P. ....	11295	18020	378	251	20.98	13.93	1.28	111	1.05	1.61	1.78	201	Yes.	109	47	7
Stockton .....	T. J. Kirk, M.B. ....	32009	6761	120	93	17.75	13.75	...	50	0.89	1.18	3.11	51	Yes.	9	9	4
Sunderland .....	G. W. Scott, M.D., D.P.H. ....	6980	32070	727	412	22.67	12.85	1.31	91	0.78	1.09	2.21	332	Yes.	92	70	86
Weardale .....	James Bannerman, M.B. ....	97753	9450	123	123	13.02	13.02	0.32	89	1.16	1.43	1.59	27	Yes.	11	16	39



TABLE B1.

TABLE GIVING THE DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES WITHIN THE RURAL DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.—1925.

RURAL DISTRICTS	DEATHS AT SUBJOINED AGES.									DEATHS FROM SUBJOINED CAUSES.																																															
	At all ages.	Under 1 Year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Smallpox.	Scarlet Fever.	Diphtheria and Croup.	Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea and Enteritis.		Puerperal Fever.	Erysipelas.	Lethargy.	Erysipelas.	Influenza.	Cancer.	Malignant Disease.	Rheumatic Fever.	Appendicitis and Typhilitis.	Other Septic Diseases.	Phthisis (Pulmonary Tuberculosis).	Tuberculosis.	Meningitis.	Abdominal Tuberculosis.	Other Tuberculous Diseases.	Bronchitis.	Broncho Pneumonia.	Pneumonia.	Other Diseases of Respiratory Organs.	Alcoholism.	Cholera of Liver.	Nephritis and Bright's Disease.	Congenital Malformation.	Premature Birth.	Genital Debility.	Marasmus Atrophy.	Injury at Birth.	Other accidents and Diseases of Infants and Parturition.	Alopecia.	Meningitis (non Tuberculous).	Convulsions.	Gastritis.	Syphilis.	Rickets.	Organic Heart Disease.	Violent or Accidental Deaths including Suffocation, Overlying, Burns & Scalds.	Suicide.	Other defined Diseases.	Arterio Sclerosis, etc.	Diseases ill-defined or unknown.
																Under 15.	Over 15.																																								
Auckland.....	726	126	48	27	31	38	78	132	246	...	3	...	2	24	9	10	5	2	4	...	22	59	4	3	2	38	5	4	5	64	31	17	5	1	3	10	52	6	...	7	6	1	7	8	1	2	72	21	6	125	68	12					
Barnard Castle .....	123	19	2	1	4	5	6	29	57	...	1	...	...	...	...	...	...	...	...	...	2	8	1	...	...	8	...	1	...	9	2	4	2	...	1	3	11	1	...	3	...	...	2	...	...	...	13	5	...	21	20	5					
Chester-le-Street.....	792	162	59	44	42	45	73	154	213	...	4	6	1	50	14	17	3	...	1	1	16	57	4	2	5	45	5	9	...	60	38	31	7	...	2	22	77	4	...	9	4	4	13	2	...	2	71	39	1	84	74	8					
Darlington.....	129	13	4	2	3	4	14	24	65	...	...	...	...	1	...	1	...	1	...	6	8	2	...	1	8	2	...	1	5	3	12	...	...	...	4	...	...	1	...	...	2	1	1	1	11	5	3	17	24	4							
Durham.....	396	77	19	17	13	19	41	74	136	...	...	2	1	11	3	10	2	...	2	...	2	33	2	4	...	27	2	3	1	35	26	9	3	...	...	9	27	4	1	5	2	4	2	3	...	2	30	16	3	62	40	8					
Easington.....	986	242	65	53	56	54	115	192	209	...	2	4	2	39	14	29	5	2	2	3	15	60	4	7	4	60	7	12	3	93	61	39	9	...	4	33	86	12	1	9	...	6	9	8	1	1	74	59	4	131	67	5					
Hartlepool.....	38	5	...	4	2	1	4	5	17	...	...	1	...	...	...	1	...	...	...	4	1	1	...	1	4	...	...	...	3	1	2	1	...	...	...	1	...	...	...	...	1	...	...	...	...	2	3	...	4	4	3						
Houghton.....	392	86	25	17	18	31	41	62	112	...	2	...	2	5	5	14	3	1	...	1	3	24	...	2	2	29	8	3	2	29	20	20	6	...	1	10	40	4	...	7	1	2	5	2	1	...	30	12	1	58	29	8					
Lanchester.....	404	77	24	16	22	28	40	82	115	...	3	...	...	11	4	7	1	...	2	2	9	29	7	...	...	25	4	6	4	30	32	12	4	...	2	12	22	3	2	3	2	3	7	4	...	1	29	13	1	71	36	1					
Sedgefield.....	424	74	31	23	19	31	48	97	101	...	...	3	...	16	5	6	4	...	1	1	13	34	1	1	6	37	2	6	4	25	31	17	...	...	1	10	27	1	...	4	5	6	9	2	1	1	41	17	1	52	30	3					
South Shields.....	251	42	14	8	12	20	30	43	92	...	1	...	...	4	13	5	1	...	...	...	12	21	2	2	2	19	2	6	2	10	5	16	7	...	1	4	14	...	1	5	...	6	5	2	...	...	19	9	2	28	23	2					
Stockton.....	93	6	2	...	1	3	13	21	47	...	...	...	...	...	...	...	3	...	...	...	1	10	...	...	...	6	...	2	...	5	5	10	2	...	1	3	1	1	1	...	...	...	1	...	...	13	2	...	16	8	2						
Sunderland.....	412	66	31	19	24	21	46	78	127	...	1	...	...	18	8	15	7	3	...	...	10	30	1	4	...	25	5	4	1	36	14	19	4	1	2	9	24	4	...	4	1	4	3	1	1	...	32	21	1	63	32	4					
Weardale.....	123	11	2	3	2	2	14	26	63	...	...	...	1	1	1	...	1	...	...	...	2	11	...	1	...	11	1	...	2	5	1	9	1	...	...	2	4	1	...	2	1	1	...	1	...	1	11	4	...	21	22	4					
TOTAL.....	5,289	1,006	326	234	249	302	563	1,019	1,590	...	17	16	9	179	77	114	38	8	13	8	117	385	29	26	23	342	43	56	25	409	270	217	51	2	18	131	390	41	6	59	22	38	64	35	6	11	448	226	23	753	477	69					



	Meningitis (not Tuberculous).	Convulsions.	Gastritis.	Syphilis.	Rickets.	Organic Heart Disease.	Violent or Accidental Deaths, including Suffocation, Overlaying, Burns & Scalds.	Suicide.	Other defined Diseases.	Arterio-Sclerosis, etc.	Diseases ill-defined or unknown
6	1	7	8	1	2	72	21	6	125	68	12
...	2	...	...	...	...	13	5	...	21	20	5
4	13	2	...	...	2	71	39	1	84	74	8
...	2	1	1	1	1	11	5	3	17	24	4
4	2	3	...	...	2	30	16	3	62	40	8
6	9	8	1	1	1	74	59	4	131	67	5
1	...	...	...	...	...	2	3	...	4	4	3
2	5	2	1	...	...	30	12	1	58	29	8
3	7	4	...	...	1	29	13	1	71	36	1
6	9	2	1	1	1	41	17	1	52	30	3
6	5	2	...	...	...	19	9	2	28	23	2
...	...	1	...	...	...	13	2	...	16	8	2
4	3	1	1	...	...	32	21	1	63	32	4
1	...	1	...	...	1	11	4	...	21	22	4
2	38	64	35	6	11	448	226	23	753	477	69

TABLE C.

Tabulated Statement of the Chief Vital Statistics of the Administrative County of  
Durham for the year 1925, compiled from the monthly returns supplied  
to the County Medical Officer by the District Registrars.

AREA.	R.G. Estimated, Population, 1925.	Births.	Deaths.	Zymotic Deaths.	Rates per 1,000 Population.					Deaths under 1 Year per 1,000 births.	Percentage of Uncertified Deaths to Total Deaths.
					Birth- rate.	Death- rate- rate.	Zymotic Death- rate.	Phthisis Death- rate.	Bronchitis, Pneumonia and Pleurisy.		
Boroughs.....	143,860	3,476	2,117	136	24.16	14.72	0.95	1.23	3.29	100	3.45
Other Urban Districts...	419,740	10,111	5,188	476	24.09	12.36	1.13	0.86	2.19	103	3.55
Rural Districts.....	431,200	10,129	5,289	412	23.49	12.27	0.96	0.83	2.20	99	2.34
ADMINISTRATIVE COUNTY.....	994,800	23,716	12,594	1024	23.84	12.66	1.03	0.88	2.32	101	3.03
England & Wales.....	38,890,000	710,582	472,841	23,882	18.3	12.2	0.61	0.83	2.00	75	1.0













